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ORIGINAL ARTICLES.

DIAGNOSTIC CONSIDERATIONS OF HEMORRHAGE FROM THE STOMACH.

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The diagnosis of hemorrhage from the stomach will have to be divided into:

(a) Gastric hemorrhage without hematemesis.

(b) Gastric hemorrhage with hematemesis.

(a) Gastric hemorrhage without hematemesis is at times difficult to diagnose; it may be either acute or chronic. In the acute, the symptoms of internal hemorrhage are present, usually ushered in with pain, nausea, or a sense of warmth and fullness in the region of the stomach.

With or without the occurrence of previous symptoms of stomach disorder.

Collapse and death may rapidly ensue, or recovery, more or less perfect, may take place; in such cases melena or hematemesis may occur as a later development.

Chronic gastric hemorrhage without hematemesis, is not so rare or uncommon. There is usually a history of some more or less distinct gastric disorder, and an examination of the bowel movements, sometimes a painstaking one, will reveal the presence of blood.

The origin of this melena will be largely conjectural, as to whether it comes from the stomach or some part of the intestinal canal.

If red in color and not coagulated it can be considered as coming from the lower bowel; if dark and tarry it may come from any part of the upper intestinal tract or the stomach, and this can rarely be decided without the clinical history. Small chronic hemorrhages present few symptoms; long continued, they give rise to anaemia; the larger hemorrhages cause these symptoms to appear sooner.

(b) The diagnosis of gastric hemorrhage with hematemesis, is usually a simple matter, especially so when compared with those cases in which this symptom is absent; and with the diagnosing of the particular lesion giving rise to the flow of blood.

The color and the consistency of the vomited blood may differ materi-

ally. It may be bright red in color, and then is necessarily liquid; then the bleeding is rather profuse and not retained within the stomach for any length of time; or the vomited blood may be dark and coagulated, resembling tar, this alteration being due to the action of the gastric juices in transforming the hemoglobin into hematin.

This condition indicates that the blood has been retained for some time within the cavity of the stomach, and the probability is that the hemorrhage has been a slow one. The blood may be mixed with the stomach contents, or it may be vomited alone. It may be ejected with considerable force, or may merely "come up" with no expulsive effort on the part of the patient.

These attacks are sometimes accompanied or preceded by pain, nausea or vomiting; again, there may be no premonition as to what is coming, but usually there is a sense of fullness and warmth in the epigastrium before the blood makes its appearance.

The diagnosis must include:

1. The exclusion of different, similar conditions.
2. The exclusion of false hematemesis.
3. The determination of the pathological condition causing the hemorrhage.

1. The condition most frequently confused with hematemesis will be hemoptysis, the coughing of blood.

In the writings of "Aretaeus, the Cappadocian," who was a contemporary of Galen, is to be found the first attempt at a differentiation between the vomiting and the coughing of blood. At this early date is given a remarkably accurate differentiation between these two varieties of hemorrhage, to which but little has been added up to the present time.

A most concise modern outline is given by Welch as follows:

HEMOPTYSIS.

1. Usually preceded by symptoms of pulmonary or cardiac disease. Bronchial hemorrhage, however, without preceding disease, is not rare.

2. The attack begins with a tickling sensation in the throat or behind the sternum. The blood is raised by coughing, and vomiting, if it occurs at all, follows the act of coughing.

3. The blood is bright red, fluid or but slightly coagulated, alkaline, frothy and frequently mixed with mucus. If the blood has remained some time in the bronchi or a cavity it becomes dark and coagulated.

HEMATEMESIS.

1. Usually preceded by symptoms of gastric or hepatic disease; less frequently by other diseases.

2. The attack begins with a feeling of fullness in the stomach, followed by nausea. The blood is raised by vomiting, to which cough, if it occurs, is secondary.

3. The blood is dark, often black and grumous, sometimes acid, and usually mixed with the food and other contents of the stomach. If the blood is vomited at once after its effusion it is bright red and alkaline, or it may be alkaline if it is effused into an empty stomach.

HYMOPTYSIS—*Continued.*

4. The attack is usually accompanied and followed by localized moist rales in the chest, and there may be other physical signs of pulmonary or cardiac disease.

5. Bloody sputum continues for some time, often for days after the profuse hemorrhage ceases.

HEMATEMESIS—*Continued.*

4. After the attack the physical examination of the lung is usually negative, but, there are symptoms and signs of gastric or hepatic disease.

5. Black stools follow profuse hematemesis.

With this schematic presentation of the subject in mind the usual case will be easily identified.

But as showing the difficulty that may be experienced in differentiating obscure cases, the following instances will be instructive:

No less an authority than Maurice Richardson, in 1900, speaks of "a recent case, referred to in a paper before the Maine Medical Society, on acute abdominal symptoms demanding immediate surgical intervention, violent pain in the epigastrium of a man of forty-nine, suddenly occurred during convalescence from a fracture of the leg. Had not the man been moribund when I saw him I should have opened the epigastrium for the violent pain, vomiting of blood, tenderness and distension with which he had been suffering.

"The autopsy showed nothing abnormal in the abdomen, the death having been caused by multiple infarcts of the lungs."

Watkins, in his "Diagnosis by Means of the Blood," cites a case of supposed hemoptysis due to a supposed "Consumption." The blood examination, in this instance, eliminated tuberculosis, and a diagnosis of gastric ulcer was made. Recovery followed after one year's treatment.

And Heineman says: "In 1889 I made an autopsy at the Mt. Sinai Hospital upon a woman twenty-two years of age, who had died after twenty-four hours illness of sudden and large hemorrhages, the nature of which was doubtful, but which were supposed to be hemoptysis. At the autopsy some blood was found in the lungs and the stomach contained over a litre.

"Although my notes say that a superficial erosion nearly 2 cm. in diameter was found near the cardiac end of the stomach, involving the mucous membrane only.

"It was attributed to post-mortem changes, and for want of a better diagnosis, bronchial congestion with resulting hemorrhage was entered upon the record with a question mark."

2. By false hematemesis is meant the vomiting of blood which has its source outside the stomach, into which it flows and then from which it is vomited.

The blood in these cases is vomited from the stomach quite properly, but it comes from the stomach secondarily, not primarily.

Duodenal ulcers may give rise to vomiting of blood, and, strictly speaking, they might be called false hematemesis, but such a differentiation is almost always impossible without a laparotomy, and as the treatment is practically the same, whether the ulcer be in the stomach or the duodenum, they are, as a rule, considered together.

Epistaxis, hemoptysis, trauma, ulceration or carcinoma of the esophagus all may give rise to hematemesis of this character, but are usually differentiated by the history and careful examinations.

A case of Janowski's, mentioned by Fuhs, bears upon this phase of the subject:

Patient entered his service because of profuse hematemesis and melena. She complained of dryness of the esophagus, which increased after meals and was of some weeks' duration. Never vomited before, but had nausea at various times. For the last three years had pains in the left side of the abdomen.

An examination of the pulmonary organs was negative.

An examination of the stomach contents was made to determine positively whether the bleeding was caused by gastric ulcer or tumor. The fasting stomach contents revealed nothing. Therefore the patient was given a test meal, which was removed after an hour, and a minute after the removal of the tube the patient died.

Though the analysis of the stomach contents were normal, a diagnosis of ulcer of the stomach was made, and gastric hemorrhage was thought to be the cause of death.

However, the autopsy showed an aneurysm of the arch of the aorta that had perforated the esophagus, causing the first hemorrhage, which ceased through the closure of the opening by a blood clot. The stomach tube, which was used in the second examination, tore off this clot, causing the patient's death.

Esophageal "piles" and varicosities of the veins at the esophageal opening, due to cirrhosis of the liver, are frequently the cause of false hematemesis.

As to the diagnosis of this condition, the quoting of two from Preble's eight conclusions might not be inappropriate:

"The hemorrhages in this class of cases are usually preceded by other symptoms of cirrhosis, but the first symptom may be a fatal hemorrhage."

And again: "In one-third of the cases the diagnosis can be made at or before the time of the first hemorrhage. In the other cases the diagnosis cannot be made at all or only after a few months or years, during which time other symptoms of cirrhosis have developed."

Thus showing a very unsatisfactory condition from a diagnostic point of view.

With the false hemorrhages from the stomach must be included those rare cases of malingerers, in which blood is swallowed, and then vom-

ited before others, for some reason, such as to avoid a distasteful duty, to excite pity, or a strange manifestation in the hysterical or the insane.

Certain foods, drinks or drugs may cause a discoloration of the vomitus, which may be mistaken for blood; but in cases of doubt as to the nature of the coloring matter, the microscope will usually be sufficient to settle the identity of blood; the spectroscope, or the test for haemin crystals, may also be employed if necessary.

Webber's test for small amounts of blood is as follows: Take filtered stomach contents and glacial acetic acid, equal parts, shake with ether, remove ethereal layer, and add fresh tincture of guaiac, ten drops, and spirits of turpentine twenty drops. A blue color is produced; the addition of chloroform makes the blue color more pronounced.

Hartmann has found that this test is reliable, *only*, after the exclusion of meat from the diet.

3. A determination as to the precise nature of the pathology of the lesion giving rise to hemorrhage, is of the utmost importance from the standpoint of treatment and prognosis.

Ulcer is the most common cause of hematemesis, and one's thought turns naturally to ulcer in all cases. Yet there are certain other conditions which must be excluded before a conclusion that the bleeding is coming from an ulcer, is arrived at.

Carcinoma must be considered: In the later stages of carcinoma there are numerous marked differences, but these are then too late to be of practical value.

In the early stages, it is practically impossible to diagnose, or to differentiate from ulcer.

This differentiation is extremely difficult in some cases, with all the clinical data, even after a laparotomy which allows of ocular and digital examination, and even in cases where sections of the tissue have been submitted to microscopic examination.

This striking similarity, in some cases, is explained by the fact that from 5 per cent. to 10 per cent. of the gastric ulcers undergo a malignant degeneration.

Erosions, fissures, bleeding patches, or acute ulcerations are to be differentiated from the more usual form of ulcer. Hemorrhage from the former conditions, while profuse and apparently overwhelming, usually terminates favorably under medical treatment.

This variety of hematemesis should be recognized as such, if possible, as its recognition would have a marked influence upon, both the line of treatment to be pursued and upon the prognostication as to the termination.

Moynihan has very forcibly emphasized the necessity of recognizing this difference.

Its importance has also been brought out by Sir Dyce Duckworth, who

considers the sudden and profuse and successive hemorrhages, with a lack of previous history, as being characteristic of erosions, as distinctive from simple ulcer of the stomach.

But other observers, while equally anxious to find some substantial differential points, have failed to confirm these observations.

It may be said, as the *Lancet* does editorially: "A sudden and profuse hemorrhage from the stomach is *much more likely* to result from an erosion than from a gastric ulcer."

The other, less common, lesions that may give rise to hemorrhage, must be recognized for the very apparent reason that the treatment will differ radically from that in which a vessel is eroded by an ulcer.

The clinical history is the chief guide to their discovery. A painstaking examination of all the thoracic and abdominal viscera, with a careful history, should always be undertaken before the cause of a gastric hemorrhage is determined upon.

In many cases an accurate diagnosis of the condition is absolutely impossible with our present means and methods. Under such circumstances an exploration is demanded. In case of doubt explore, upon the supposition that the chances are greatly in favor of the lesion being something amenable to direct treatment.

FRACTURE OF THE FOREARM FOLLOWED BY CONTRACTURE OF THE FLEXOR TENDONS—REPORT OF A CASE.*

BY CLIFFORD U. COLLINS, M. D., Peoria, Illinois.

M. H., aged seven, living at Vandalia, Ill., was playing on a hay stack ten feet high, on March 16, 1903, and fell off breaking, both bones of the left forearm at the juncture of the upper and middle thirds. Dr. M., of Vandalia, was called and applied anterior and posterior splints, and a small interosseous splint, all of wood padded with cotton, which were bandaged snugly to the arm. The splints were removed in three weeks and judging from all appearances a good result had been secured. There was good union and an almost normal contour of the arm.

But the parents soon noticed that the thumb and fingers were closing down into the palm of the hand, and there was little or no sensation in the third and fourth fingers. An effort was made with massage and manipulation to overcome the condition, but it became worse in spite of all efforts.

In June he was brought to the St. Francis Hospital, of this city. A photograph of the hand was taken (Fig. 1) which shows the position of the thumb and fingers when the hand was extended. When the wrist was flexed the fingers could be made straight, but the fingers and wrist could not be extended at the same time. The finger nails showed de-

* Presented to the Peoria City Medical Society, May 17, 1904.

generation, the entire hand was small and blue and showed a lack of nourishment, and there was no sensation in the third and fourth fingers. A skiagraph was taken (Fig. 2) which shows a faulty union of both

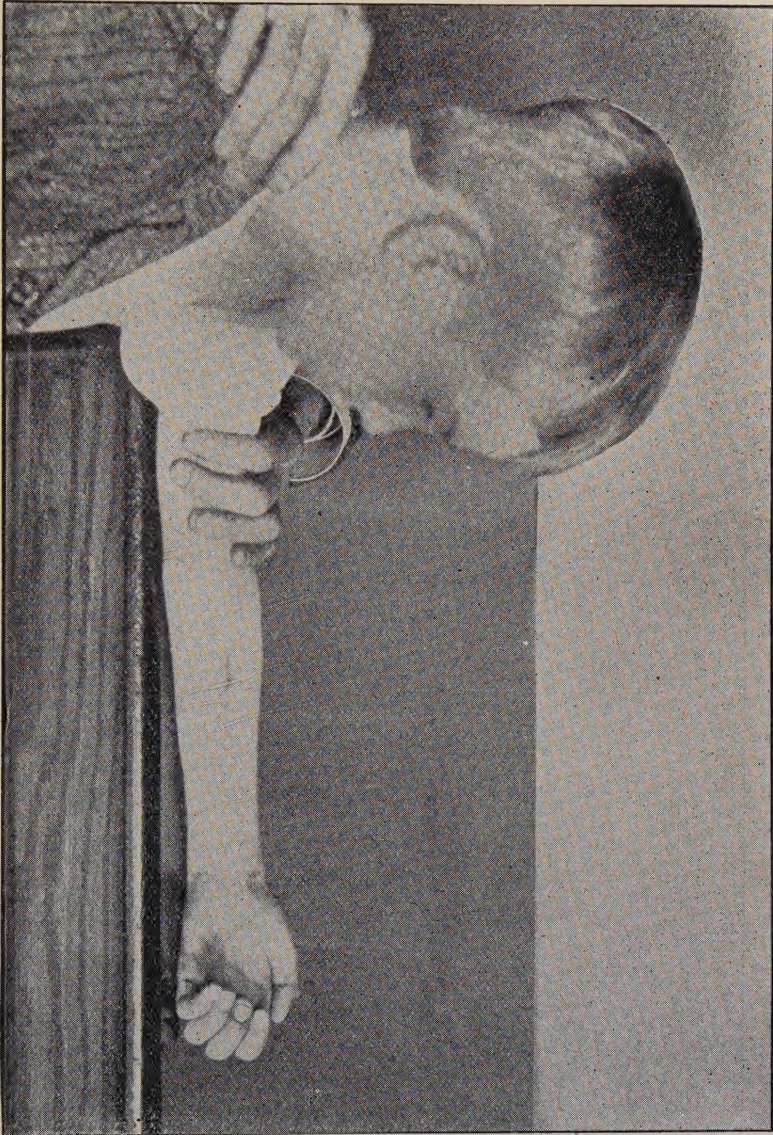


FIG. 1.

bones, but the ulna seemed to be causing the most trouble, judging from the facts that the muscles flexing the fingers lie more to the ulnar side of the forearm, and the third and fourth fingers, the fingers supplied by the ulnar nerve, were anesthetic.

On June 11th a longitudinal incision was made along the posterior surface of the forearm over the ulna. The muscles and fascia were separated from the bone except at the point of fracture, where it was impos-

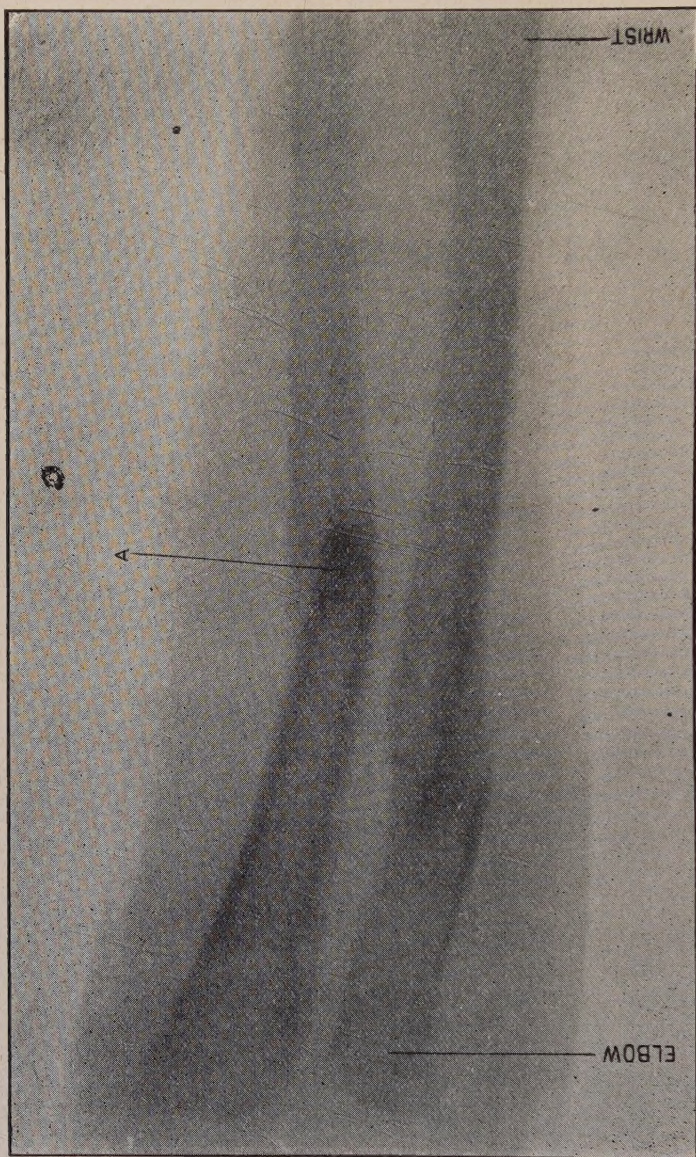


FIG. 2.

sible. The muscle and fascia had been transfixated by a sharp fragment of the ulna (see "A" in Fig. 2) and a portion was caught in the callus and had to be cut before the muscle could be freed. A partially organized hematoma, about three centimeters in diameter, was found in the

muscle near the site of the fracture and removed. So there were two conditions contributing to the crippled condition of the hand, the transfixing of the muscle by one of the fragments and the internal pressure between the splints of the hemorrhage causing the hematoma, and neither of these conditions could have been discovered by the x-rays.

The bone was sawed through at the point of fracture with a Gigli saw, and the ends were trimmed off and united in a better position with two aluminum-bronze wires. The muscles and fascia were separated from the fractured point of the radius as much as was possible through

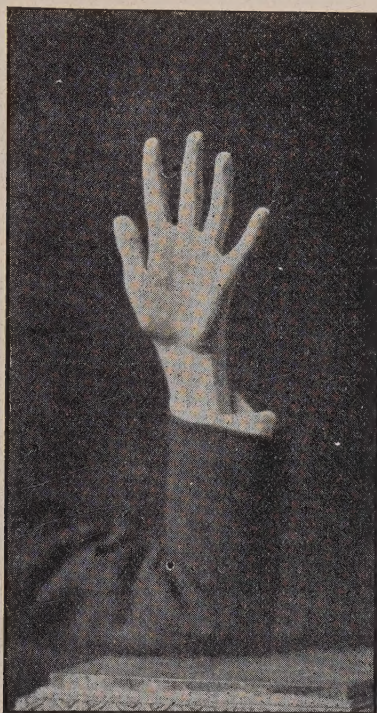


FIG. 3.

that incision. While he was under the anesthetic his fingers were forcibly extended considerably, but it was impossible to extend them completely. The fascia and skin were united with two longitudinal aluminum-bronze wires. The forearm was placed lightly in an ulnar splint of perforated tin.

The skin and fascia wires were removed on the fifth day, union being complete. The patient left the hospital for his home on June 20th. An earnest effort was made from then on to overcome the contracture by massage and manipulation of the hands and fingers. After the ulna

had united the muscles of the forearm were thoroughly massaged each day.

Sensation returned to the third and fourth fingers and the general condition of the hand became much improved, but the boy could not extend the fingers.

On August 17th, at the patient's home in Vandalia, an incision was made in the middle of the anterior surface of the forearm two inches long, beginning at the wrist. The tendons of the flexor profundus digitorum were lengthened by the ordinary stair step method and the ends united with catgut. This was not sufficient, so the tendons of the flexor

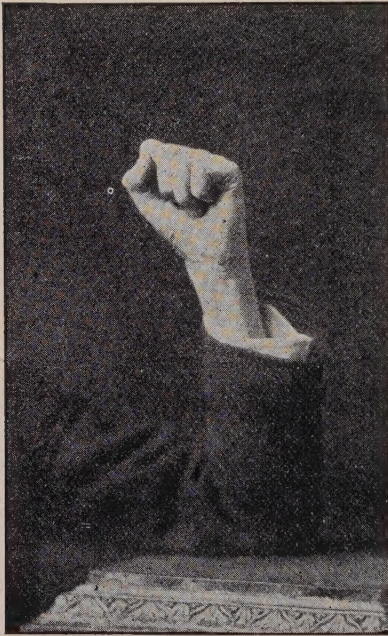


FIG. 4.



FIG. 5.

sublimis digitorum were also lengthened. Then all the fingers could be completely extended without any resistance. The tendons of the thumb were left alone as its condition had improved greatly under the massage.

The incision in the skin was closed with a continuous buttonhole suture of black silk. Union occurred by first intention and in ten days the boy could move his fingers. The improvement from then on was rapid and very satisfactory. Figures 3, 4 and 5 were taken about January 1, 1904, with the fingers extended, flexed and holding a glass of water, thus showing how completely the usefulness of the hand was restored.

Volkman accurately described the condition found in this case and

termed it "ischaemic paralysis." As regards the prevention of this condition, all the surgeon can do is to carefully follow the ordinary rules governing the application of splints. The splint should be as light as possible consistent with the work it has to perform; it should be removable so as to permit of massage of the limb, and it should not press unduly upon any part of the limb. The bandage should hold the splint firmly and snugly without constricting the limb at any point.

If the surgeon is not satisfied that the fragments are in close apposition, the point of fracture should be cut down on and the fragments adjusted under the eye. So often a portion of muscle will be found between the fragments. In one case the writer found a large vein preventing the adjustment. If the vein had not been removed from between the fragments the union would have been faulty and in a few hours the coats of the vein would have been eroded and the case further complicated by the presence of a large hematoma.

While the fragments are exposed they may be fastened together with screws, plates, nails, pegs, wire, or chromacised catgut, according to the needs of the case or the predilections of the surgeon. The writer prefers aluminum-bronze wire. The rules governing asepsis should be rigidly followed. Rubber gloves were used in both operations in the case reported.

It should be stated in this connection that two physicians were in attendance when this fracture was splinted and the above rules were duly followed. The contour of the arm was normal and as far as appearances indicated the bones were in good apposition.

The transfixing of the muscle and fascia by one fragment, and the consequent fastening of one portion by the callus thrown out between the fragments, was a prime factor in causing the condition in this case. And added to it was the presence of the hematoma. Cheyne and Burghard, in their *Manual of Surgical Treatment*, Vol. II, page 198, say that "hemorrhage into a muscle may be followed by a variety of troubles; it may lead to adhesion of the muscular fibers to each other, or to fibrosis and consequent impairment of function." The hematoma, forced out by the blood pressure, also increased the pressure between the splints.

In the treatment, massage of the forearm and hand and manipulation of the fingers should be given a trial. It is claimed that it will relieve a large per cent. of the cases. In this case it was given an earnest trial and failed. Possibly if the patient had been old enough to have intelligently worked in conjunction with the surgeon, more could have been accomplished. However, it is difficult to see how massage could have freed the transfixed muscle.

Lengthening of the flexor tendons has been suggested, but this will not give a serviceable hand if the etiologic conditions in the forearm were not removed.

Resection of the radius and ulna has also been recommended. A piece of each bone is removed to sufficiently compensate for the shortened tendons, so that when the bones are united the fingers can be straightened. At the same time the conditions causing the trouble, such as a hematoma, a transfixed muscle, or an excessive amount of callus, can be removed. This method of treatment leaves a deformity—a shortened forearm—and relaxes muscles and tendons that are not involved in the difficulty.

It appears to the writer that the rational method of treatment would be to use manipulation of the fingers and massage of the forearm and hand. If that fails to relieve, cut down on the point of fracture and remove the causative conditions found there. Remove any excessive callus or hematoma. Release the tissues from the bones at the point of fracture. Saw through both bones if it is necessary in order to do this. Reunite the ends of the bones. Then at the same time, or later, make an incision just above the wrist and lengthen the contracted tendons; remembering that rigid asepsis is just as necessary in this case as in a laparotomy.

This treatment leaves no deformity and should result in a useful, serviceable arm.

THE SURGERY OF ARTHRITIS DEFORMANS.*

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SYNONYMS—RHEUMATOID ARTHRITIS, OSTEO-ARTHRITIS.

Before going into the immediate subject of this paper it will be well to settle at the start just what cases are to be labeled arthritis deformans. Up to a comparatively recent period there have been included under that general head two classes of cases, the one more acute in character, characterized by febrile exacerbations, spindle-shaped swellings, joint effusions, muscular atrophy, and occurring in young persons; the other essentially chronic, presenting usually symmetric lesions, attacking the smaller joints, occurring later in life, with no constitutional disturbance and very little pain, its principal feature being disfiguration and limitation of joint movements, due to bony outgrowths.

The tendency in the most recent modern literature appears to be to restrict the term arthritis deformans to the latter, chronic, group of cases, and to view the former, acute, group as a thing apart, perhaps identical with Still's disease, which is defined as a chronic progressive enlargement of the joints, associated with enlarged lymphatic glands and spleen, and again, perhaps identical with what Royal Whitman calls the polyarthritis of children.

* Read before the Orleans Parish Medical Society, June 25, 1904.

Assuming this conclusion to be correct, let us, before proceeding to the surgical aspect of this disease, review briefly the etiology, pathology and general treatment of the disease,

Etiology.—A. E. Garrod and R. L. Jones, both of whom appear from their writing to have made a painstaking study of the disease, unite in attributing to disturbed nervous function a prominent part in the production of this disease. The former calls it a dystrophy; the latter attributes its source to a toxemia that has a segmental action on the spinal cord, leaving in doubt the question of the autogenous or heterogeneous nature of the toxemia.

Jones calls attention to the frequent coincidence of arthritis deformans and exophthalmic goiter, and of the same disease with tetany, both associate diseases involving the nervous system; other writers (Walsham among them) speak of physical and mental strain as causes of this disease; the athlete, who subjects his physical mechanism to too great stress in his strenuous pursuits, and the over-zealous brain-worker, sacrificing everything to ambition, forgetful of rest, of family, of social and civic duties, are alike subjects to arthritis deformans.

It is believed by some that the cause of this disease may yet be found to be an infection entering through a neglected atrium in the alimentary or some other apparatus.

Pathology.—The articular cartilages appear to be first involved, wearing away and exposing the articular bone underlying them. This may become eburnated from its exposure; on the other hand, union of the exposed bone ends may take place, Garrod speaking of bridges of cancellous bone tissue being identified between the denuded articular surfaces, while Markilwicz describes three cases of chronic ankylosing inflammation of the spinal column. The bones also give off exostoses which greatly impede the joint movements, this contributing largely to the inconvenience and discomfort caused by the disease.

R. L. Jones considers the particular swellings due to vasomotor disturbances. Jones also believes there is an undue tendency to centralize the disease in the joints to the unfair exclusion of muscular and sensory involvements; he fails, however, to give us information as to the pathology of these last named lesions.

Distribution.—While the disease tends to attack the smaller joints by preference, invading the temporo-maxillary articulation and converting the hands into knotted and gnarled masses, it by no means confines its ravages to these joints. The vertebral column is not allowed to escape; the shoulder is at times affected. The probability is that when this disease will have been studied with greater thoroughness it will be found that no joint is entirely free from this slow but persistent affection.

Diagnosis.—The tendency to symmetry, to attack the smaller joints, to occur later in life, the absence of constitutional disturbances, the moderate severity of the pain, the disfiguration and limitation of joint move-

ments by bony outgrowths, serve to distinguish the disease from gout, and, if I may be permitted to employ the term, acute rheumatism.

From the latter arthritis deformans is specially distinguished by the rare occurrence of endocarditis as a complication.

Heberden's nodes are frequently observed, a majority (nineteen out of twenty-seven) of the patients seen by Merrins with this lesion having arthritis deformans. Crackling in the joints on manipulation is said to be a symptom of value, this arising from the rubbing together of the roughened articular extremities. R. L. Jones speaks of the deep reflexes as uniformly more brisk on the diseased side. As the disease is usually symmetrical, he perhaps means the side more diseased. The phenomena described by him do not seem to conform to any particular law, and the observation in its present state is not applicable in a useful way. Pain is present in the muscles as well as in the joints of the same moderate character.

General Treatment.—Writers agree in recommending care of the general health, open air exercise, good food, avoidance of physical and mental strain. Removal of any possible atria of infection should be effected when indications exist. Arsenic and cod liver oil may be given internally. Locally, hot air and massage are generally commended. As to the use of passive movements of the joints opinions differ. A. E. Garrod says passive movements of the joints do more harm than good. E. J. Cave recommends forced movements under anesthesia.

Surgical Treatment.—This may be said to exist rather "in posse" than "in esse." Dr. R. M. Van Wart, in discussing the subject in a conversation, suggested that the obstructing and disfiguring outgrowth might be chipped off. This might be temporarily effective in badly crippled joints, giving an immediate improvement which might be kept up by attention to the general line of treatment given above. Again, ankylosed joints might be subjected to resection. But such interference would have to be tentative. If the disease is mainly dystrophic, as would appear most likely, the traumatism might leave the patient less well off than before on account of diminished powers of resistance and low healing power.

Experience will point the way in this matter as in all others.

Another form of possible surgical interference is the transplantation of tendons, to correct deformities of joints, due to the disease under consideration. An interesting instance is given by M. Moullin, who transplanted the insertion of the biceps femoris tendon for persistent contraction of the knee joint in a case of rheumatoid arthritis, as he calls the disease. Beyond the possible correction of joint deformities by osteotomy, by resection, by tendon transplantation, the field afforded the surgeon by the disease under consideration does not appear to be specially inviting or large.

In concluding this paper I wish to specially thank Dr. R. M. Van

Wart for his assistance, especially in the matter of bibliographic suggestions.

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PLASTIC SURGERY.

By C. E. RUTH, M. D., Keokuk, Iowa.

While plastic surgery concerns the replacing of skin and mucous membrane defects in various parts of the body, my own experience with it of the most trying kind, has been in replacing the loss of tissue in the face. Where flaps may be undermined and a direct approximation of the margins made by stretching, the result is usually satisfactory, provided, due attention is given asepsis and tension on sutures is avoided. Defects of the skin can usually be closed by immediately grafting or as soon as vigorous, clean, small granulations appear. Much time is lost and annoyance caused by attempts to graft on a suppurating surface. Grafts of epithelium only are almost worthless because their vitality is so slight that they are constantly being lost from a slight injury, weeks and even months after repair is well advanced. Grafts, which include the entire thickness of the skin, but have no fat globules on their under side to interfere, will, under favorable conditions, not only grow, but give a degree of strength and resistance much more nearly approximating that of the skin which formerly occupied the place. Where the loss of tissue is so great as to open up the cavities of the face, as antrum, nares and mouth, the difficulties are many times increased. It is worse than folly in such cases to close in the defect with skin of which the underside is a raw surface attached to nothing. Such a flap will discharge pus indefinitely and grow a large mass of granulation tissue into the cavity and probably never cicatrize. To avoid such consequences it is necessary to line all such flaps with an epithelial layer of the skin and place a second flap upon this with epithelium out so that the two layers of skin are used with only marginal connection for their blood supply. Such flaps, however, with their raw surfaces in contact will usually unite with each other, and if reasonable care is exercised regarding their blood supply they will also unite at their margins and add greatly to the patient's comfort and happiness. When, however, it is

impossible to perfectly line such a flap with a complete epithelial surface to take the place of the mucous membrane, much may be accomplished by turning in the epithelial margin of the defect as far as possible, thereby giving a partial, marginal, epithelial lining, from which the epithelium will grow toward the center and so close the opening, if it is not too large. This plan will greatly lessen the subsequent contraction in the cicatrizing process in the cases in which it is justifiable to use this plan. When but one thickness of skin can possibly be secured, it is best that it shall always be placed with the epithelial side inward, provided it can be done without twisting or otherwise endangering the vitality of the flap by interfering with its nutrition. A flap so placed with its raw surface outward and having a good marginal connection and satisfactory blood supply throughout can take grafts so as to give good results in many otherwise hopeless cases. A serious drawback sometimes encountered is the difficulty of procuring such flaps by any device free from hair where they can be inverted or where they are to cover parts of the nose or upper part of the cheek. This difficulty is necessarily greater with men than with women. In one case, I had no difficulty in lining the cheek with smooth skin from the forehead, but was compelled to put on a flap over this extending to the top of the nose which was covered with a heavy beard. When possible, the pedicle should be left permanently attached to the flap, but in two cases where I have lined the nose and cheek with flaps brought down from the forehead I have covered this with an outside flap from some other part of the face, later, separating the pedicle to the forehead flap and replacing the base of the same, including the eyebrow, in its normal position on the forehead greatly lessening the deformity thereby and aiding materially in closing the graft area of the forehead. An additional disadvantage in these cases is the impossibility of maintaining anything like thorough asepsis. On this account the most perfect drainage must be constantly maintained.

In my first case, the right half of the upper lip, all of the right cheek to within one-third inch of the ear and to the middle of the body of the lower jaw was gone, together with the superior maxillary bone, except its posterior surface. The antrum, nares and mouth were therefore one cavity with cicatricial tissue extending far out at points over the margins of the enormous gap. In all, seven distinct operations were necessary to close in this defect. First, the remnant of the upper lip was separated from its underlying connection and brought as far as possible to the right, the lower lip was divided vertically and part used to bridge out the upper lip so it would extend far enough to the right to complete the angle for the mouth on the right side. A neck flap was then brought up and sutured into the remaining gap after raising and turning in the cicatricial margins for epithelial lining as far as possible. Heat was applied for five days, but in spite of this precaution one-third of this flap was lost. The entire right side of his forehead was next raised as

a single flap with its pedicle carrying the temporal artery and nerve supply left attached and the entire flap was used to close in the rest of the defect with entire success. The base of the pedicle was set into the tissues as it crossed horizontally below the zygoma and was never detached. Small, minor, secondary operations were required to close a couple of fistulous tracks and to cure the ectropion of the right eye. This case remains well after almost four years and the deformity is not great.

In my second case the destruction of tissues included all of the right one-half of the upper lip and cheek to within one inch of the eye and ear, most of the superior maxillary bone, soft tissue to the lower margin of the inferior maxillary and destruction of part of the inferior maxillary on the right side. Worse still, the carcinoma, for the cure of which the destructive agent had been applied, was still active, involving the right half of the tongue well down to its base and soft tissues were also infiltrated on the inner side of the remaining inferior maxillary. As a preliminary step in this case the right half of the tongue was excised with two inches of the inferior maxillary and all discoverable, sub-maxillary and sub-lingual glands were removed at the same time. In the removal of the tongue I was much aided by drawing the same well forward, then transfixing it with a needle passed through the soft parts above the hyoid bone and close against its superior border at its middle, emerging at the superior border of the attachment of the epiglottis. The needle was next carried from within outward, passing in front of the external carotid artery, but above the origin of both the facial and lingual. By aid of this needle a silk thread was made to carry a wire so that all the vascular supply of the base of the tongue was perfectly controlled without danger of cutting the constricting agent accidentally by knife, scissors or cauterizing point. The vessels were readily taken up individually as desired.

In this case, I was able to practically close up the defect at a single sitting by forming the angle of the mouth somewhat as in case one, exact vertical division of the lower lip and securing a flap from the remnant of tissues on the cheek and neck having a good blood supply so that almost no tissue was lost. The plan of inverting epithelial, cicatricial, marginal tissue was followed in this case. The importunities of this poor fellow to close the defect and stop the discharge of saliva induced me to make the repair of the cheek prematurely before I had sufficient assurance of the permanency of the recovery from carcinoma. The result was a recurrence after one year, not recognized until beyond operative or other relief.

While case three is a very simple and safe one, as compared to cases one and two, consisting of the loss of tissue $1\frac{1}{2}$ by 2 inches at the left angle of the mouth, I found it extremely difficult on account of the fact that I could not by any amount of planning obtain a

lining sufficient to cover the inside of the cheek entirely free of hair, though I used all the cicatricial margins I could by inversion, as well as all available buccal mucosa. In spite of all my care some hairs were inverted and have caused quite a little annoyance. The deformity is very trivial.

Case four had lost all the bony and some of the cartilaginous part of the nose. In this case a lining was made by splitting the tip of the nose and turning the same upward after inverting the freshened margins for attachment. Flaps were next brought up from each cheek without twisting and a nose was formed which was practically free from deformity except that it was low in the middle. The scars of the cheek were infinitesimal.

Case five was, all things considered, the most trying of any I have undertaken to deal with, because he had lost not only all the right half of the upper lip, all of the right cheek to the eye above, to the body of the lower jaw below, soft parts, to within one inch of the ear, but he had also lost the upper part of the superior maxillary on the right side, part of the malar bone and nearly all of the nose. The angle of the mouth was formed much as in case two, marginal scar tissue inversion was practiced in this case as in cases one, two and three for the first flap, which was taken from a small strip in front of the ear and from the neck to close in the lower part of the gap. The flap was allowed to become inverted at its upper inner margin and fold upon itself where free of hair to form its own lining where the marginal inversion could not be made to reach. To procure a lining for the remaining nasal space free from hair the right half of the forehead was raised with the pedicle, very broad, attached from the median line to the middle of the eyebrow. To procure adequate blood supply it was necessary that its pedicle include both the supra-orbital and supra-trochlear arteries as the latter's reinforcement from the angular had been previously destroyed. On bringing down this flap it was found too short to reach the nasal tip and it was necessary to vertically divide the eyebrow, by which means the flap was secured in proper position reaching to the point desired without tension. The entire surface of the left cheek, which was free from hair was now brought across to the right side to cover the flap brought down from the forehead and to complete the formation of the nose. The pedicle of this flap received its blood supply from near the inner canthus of the left eye. Both these flaps gained their attachments without difficulty. The only trouble we now had to meet was to secure a right nostril with any satisfactory capacity. As we had no cartilage there was a marked tendency to contraction and collapse. Eversion of both lower eyelids was pronounced and had to be met in the left eye by bringing down a small flap from the forehead and filling in the lower lid. Redundant tissue from the new nose was utilized to raise the right lid. As soon as sufficient time had elapsed to procure good union of both lining and

outer flap of the nose the base of the lining was sectioned and turned back on the forehead so as to replace the eyebrow and narrow as much as possible the cicatrization space from which the flap had been taken above the eye. There remained redundant tissue at each side of the base of the nose which required removal. The results of this case I am happy to show you by consent of the subject himself. I am assuredly not anxious to again undertake the formation of a new cheek and nose for the same individual.

Case six represents a patient from whom the left half of the nose, the upper and outer portion of the superior maxillary, part of the upper lip, part of the malar bone and all of the left eye had been removed. In this patient, I was again compelled to utilize the forehead for lining of the cavity. This was accomplished without unusual difficulty. The margin of the entire wound was, of course, raised and inverted to give as broad attachment of the margin of the flap as possible. The remaining portion of the left cheek in front of the ear and as much of the neck tissue as was required to close in the defect were next raised and sutured in place on the external raw surface of the forehead flap. Union in this case was in every respect satisfactory except at the nasal tip. Later, when satisfied that the union was sufficiently strong to make no trouble, the pedicle of the lining was sectioned, the base of the same replaced to form the eyebrow and cover a portion of the forehead. A serious mistake was made in returning too much of this flap to the forehead, as it left the rest slightly short and caused a defect one-eighth by one-half inch of gap at the upper margin. Otherwise the results are perfectly satisfactory in every way, save that the left half of his nose is covered with a heavy beard. I am sorry that I have not been able to secure a photograph of this patient since operation. However, the defect is very slight, barring the loss of the eye on the left side.

All these cases have come into my hands as the result of the work of a cancer cure company, located about one hundred and sixty miles north-east of my home. This company has followed its mutilating business for several years, with very considerable success as to the number of patients treated and also from the standpoint of cure, provided, the cases were really malignant. The evidence as to this, however, is not forthcoming except, probably, in one or two cases. If we knew whether or not these patients had carcinoma or sarcoma we could better judge as to the merits of the treatment. The material used is sufficiently destructive and, from reports of patients, not as painful as most caustic agents. And the cicatrization of the tissues appears to be satisfactory, but in many cases, I am convinced, that the enormous destruction of tissue was not necessary and the question of criminality comes to mind. Whether or not these things should be permitted in a state having medical practice regulations comes up for serious consideration. For myself, I feel it is a blight on our civilization. If, however, this agent be used under proper regulations, it is evidently capable of doing great good, and I believe the percentage of permanent recoveries should be as great as by any other method.

CLINICAL REPORT.

A REPORT OF TWO CASES OF RETROPHARYNGEAL ABSCESS, THREE CASES OF PYELITIS AND ONE OF HYDRO- CEPHALUS—WITH RECOVERY—IN INFANTS.

BY W. L. JOHNSON, M. D., St. Louis.

Baby B., aged six months, breast fed, was taken ill with mild fever and catarrhal symptoms on February 28, 1904. These symptoms grew worse in spite of steaming under a tent, ipecac and unusually vigorous treatment and excellent care. The throat was not easily seen on account of the infant's "hard mouth" and an accumulation of mucus which invariably welled up when the effort was made. On March 2d the retracted head, inspiratory dyspnea and increasing severity of the symptoms made me feel certain of a retropharyngeal abscess, which was recognized, only by palpation, running down the left posterior wall of the pharynx.

Dr. Chapman was asked to see the child and assist me.

As he thought it might be only a peritonsillar abscess, I punctured the tissue surrounding the tonsil, but got only blood. I then cut lower, under great difficulties, and a tablespoonful of pus escaped. The infant was apparently relieved, but not as much as I thought it should be. The following morning the symptoms were as before, so that with my finger I tore the sac on the left posterior wall of the pharynx and a considerable quantity of pus escaped, followed by marked relief. This abscess extended further down than my finger could reach, but emptied itself, and the baby made a good recovery.

Baby H., aged fourteen months, was seen February 25, 1904, for similar symptoms and not again seen until March 1. On this date there was no evidence that I could obtain of an abscess, but the same difficulty was experienced in seeing the throat as in Case I. March 3d I was called again. The mother reported the baby as having had a distressing night, clinging to her in her attempt to get air. Palpation revealed a large abscess, also on the left side. Remembering my experience of the day before, I ruptured the abscess, then and there, with the finger, and a large amount of pus was evacuated. The child went to sleep and slept from 10 A. M. to 4 P. M. The next day I assisted the expulsion of more pus, and could get the index finger of my left hand into a pocket which evidently ran down behind the larynx. The symptoms abated for a time, but returned on March 23d—especially inspiratory dyspnea, fever and septic symptoms. The baby showed a slight swelling just in front of the trachea, half an inch below the cricoid. Several physicians saw

the case, but there was no agreement as to whether there was fluctuation or not. The baby was taken to the Bethesda Hospital, where Dr. Saunders advised operation. Dr. A. Levy operated. The superficial layer of the deep fascia was reached and incised; pus came out, and Dr. Levy took care of the baby until recovery.

Here then was a retropharyngeal abscess followed by a deep cervical one, operated on promptly with complete recovery.

June 11, 1902, Dr. Saunders had me see baby B., aged six months.

She was a poorly nourished, bottle-fed infant, having temperature, repeated vomiting and losing weight fast. On palpating the abdomen I found a tumor and pain over it on the left side. At that time I had little or no definite idea of pyelitis, but felt that the left kidney was infected. Upon my report I was instructed to obtain the urine, which I did by catheterization. It was albuminous, contained pus cells and blood cells.

The diagnosis was then clearly pyelitis, and accorded with the provisional one made by the doctor on June 12th when he saw the case with me.

There was in this case and the others great pain, requiring an anodyne, so that rest might be had. The treatment was alkalies and a formaldehyde combination. July 5th all trace of pain, tumor and pus had disappeared. It was more than a year, however, before the baby was in anything like a fair condition.

The next case was Baby J., aged ten months, who had been treated for "stomach trouble," but was found to have fever, vomiting and a tumor, with tenderness on the left side. The urine was examined and found to contain pus, blood, etc. The baby improved rapidly on treatment directed toward the cause and recovered in four weeks of the infection, but remained ill-nourished for some months.

The third case was one in another female, Baby F., aged nine months, where I had diagnosed grippe, but the diagnosis didn't hold with myself, so that I made a complete physical examination, finding again on the left side an index to the situation. This baby was catheterized frequently and the urine watched closely from February 26, 1904, to March 15, 1904, when all trace of pus had disappeared.

The formaldehyde salt was given, however, without my knowledge, until a week ago, without any apparent damage.

The diagnosis was made on the location of tumor, presence of pain, absence of pain over site of the bladder and urinary findings.

In all cases of irregular fever let us take Dr. Holt's advice and examine the urine. The results of treatment are manifest in a very short time and the new formaldehyde salts are remarkably efficient. The case of hydrocephalus is an exceptional one in its outcome.

Mrs. C. was confined February 2, 1904. A diagnosis of twins having been made and labor progressing unsatisfactorily, I asked Dr. Chapman to come to my assistance. I delivered the first baby with instru-

ments in a short time and without incident or injury. The second Dr. Chapman delivered "footling." On the third day one of the babies began to be jaundiced, and in a day or two more its head was noticed to be enlarged, sutures separating, fontanelles tense, and in ten days the picture of hydrocephalus was complete. The baby was the "forceps" baby. The icterus was the most intense I had ever seen, and there was marked difference in the pupils, the right being more than twice as large as the left, the sagittal suture was an inch wide, the head globular, the eyes characteristic. Unfortunately no measurements were taken. It was not thought necessary on account of the clear picture and the grave prognosis and imminent danger, for the baby was hardly alive on the eleventh day. I watched the infant until the 26th of February, the twenty-fourth day of life, when the icterus was slightly better and the general aspect better; that is, the baby showed better physical condition. March 23d I saw it again, and the icterus was considerably better, but not gone, the head was assuming better proportions, the sutures hardly at all separated. On June 21st, the last time I saw the baby, it was apparently a normal child.

The only treatment was fractional doses of calomel (1-40 gr.) intermittently for a couple of weeks. Dr. Saunders saw the case with me, and made, as I had, a diagnosis of hydrocephalus and a positively hopeless prognosis.

The occurrence of the marked icterus—the urine and even the sweat containing large quantities—is an association not to be overlooked in this singular case. Did the biliary saturation have any therapeutic effect?

The temperature was sometimes slightly elevated, frequently subnormal. There was no external injury, no infection of the navel, no milk infection.

TWO CASES OF OBESITY TREATED BY MEANS OF THYROID EXTRACT.*

BY ALBERT E. TAUSSIG, M. D.

The drug treatment of obesity is falling into a neglect that, on the whole, is deserved. By means of a careful regulation of the diet and of exercise, combined with proper hydro-therapeutic procedures, we can in the majority of cases treat obesity successfully and with perfect safety to the patient. Of all the multitude of drugs that have been recommended for the treatment of obesity, the only one that is at all effective is some preparation of the thyroid gland. But in spite of its unquestioned efficiency thyroid extract has certain drawbacks that forbid its routine use. In many cases, as soon as an effective dose is reached, toxic symptoms present themselves: headache, circulatory and nervous

* From the medical clinic of Washington University, service of Prof. W. E. Fischel.

disturbances. Where these do not promptly demand the withdrawal of the drug, the proteid constituents of the body waste away with the fat, so that the rosy, full-blooded, obese patient is converted into an anemic, much weakened, loose-skinned semi-invalid. Finally, even in most of those cases in which the thyroid gland acts well, a cessation of the treatment is followed by a prompt return to the previous condition of obesity. All of the ill-effects of thyroid extract in the treatment of obesity are most pronounced in children, and here it should never be given unless we have reason to assume thyroid insufficiency.

There are, however, certain exceptional cases that seem to thrive on thyroid extract. They lose in weight promptly and steadily—feel, one may almost say, the years fall from their shoulders as the treatment progresses; and, strangest of all, when their normal weight has been reached, seem able to maintain it after the entire or nearly entire withdrawal of the drug. The two cases of this kind that I am able to report both came of families in which obesity was hereditary. It may be that this condition had some connection with a hereditarily insufficient thyroid gland, and that therefore the administration of thyroid extract merely supplied the body with an element necessary to its normal function.

Case 1.—Mrs. G., housewife, aged forty-four. The patient comes of a very obese family. Her mother, who is a short woman, weighs 183 pounds. Her maternal grandmother, also rather a short woman, weighed 300 pounds when she died at the age of 79. At her funeral the pall-bearers were four grandsons, each weighing over 200 pounds, and there were present in addition a daughter, weighing 247 pounds, and three granddaughters, each weighing over 200 pounds. The patient has always been very stout, but during the past few years has been gaining in weight rapidly, and has been suffering from occasional vertigo and from very severe attacks of cardiac palpitation. These come on without warning and at any time, whether day or night. Her heart seems to give a violent bound and then to stop. Immediately after it begins to beat violently the patient feels as if she could not breathe, sharp pains shoot upward into the left shoulder and the neck (not into the left arm), and she feels as if about to die. A few minutes later, however, all discomfort has ceased and she can resume her previous occupation.

In addition to these paroxysms, her mere bulk interferes with her work; she is short-winded and tires easily. Occasionally she has attacks of polyuria, in which she passes from three to eight quarts of urine in twenty-four hours, is very thirsty and drinks corresponding amounts of water. It may be stated here that her urine was examined at frequent intervals during the course of the treatment, and was always found normal, except that during her attacks of polyuria the specific gravity was very low. For five years the patient had occasionally suf-

ferred from sciatica, during one of which attacks she came to the clinic. There was no history of syphilis. On examination the patient was found to be a stout, full-blooded woman, not making the impression of one in ill-health. Temperature, 98.9°; pulse 108, soft and regular; hemoglobin, 70 per cent. A physical examination was rendered very unsatisfactory by the thick layer of fat everywhere; nothing abnormal was found, however, except considerable tenderness along the course of the left sciatic nerve.

At first the treatment was directed only towards the relief of the sciatica, and with only moderate success. In June, 1901, however, believing that all of the patient's symptoms were due to her obesity, a reduction cure was begun at the suggestion and under the supervision of Dr. C. A. W. Zimmermann, the clinician in immediate charge of the case. At this time she weighed 263 pounds. She was put on a rather strict Ebstein diet, told to take the usual Winternitz baths, and was given very small doses of thyroid extract (gr. ss, three times daily). At first she did very well under this treatment, losing five pounds in ten days, but she soon found it impossible to adhere to the diet. She was therefore put on only a moderately restricted dietary, but was given larger doses of thyroid extract. During the latter half of June she received two grains three times daily, and lost ten pounds in weight. During July and the first four weeks of August she took three grains three times daily, and lost a further twenty pounds, making her weight on August 27th, 230½ pounds. During this progressive loss in weight all of her distressing symptoms disappeared—her sciatica ceased, her vertigo and polyuria disappeared, and the dyspnea and palpitation did the same. She felt able to do unlimited housework, and was able to walk miles without discomfort. During the last months in particular she had failed to pay any attention to her diet, so that the loss in weight and the general improvement must be ascribed solely to the thyroid extract. As she desired, for cosmetic reasons, to lose still more fat, the dose was increased during September to four, five, and even six grains three times daily. Oddly enough, these large doses had no effect upon her weight, either because she had become habituated to the drug, or perhaps because we had to deal with an inert preparation. On discontinuing all treatment, however, her weight took another drop, so that on December 1st it had fallen to 220 pounds. At this time she felt absolutely well in every respect, and soon after ceased coming to the clinic. She had lost forty-three pounds in six months, wore a No. 16 collar instead of No. 17½, while her waist measure had shrunk from 42 to 34½ inches.

For one year she remained perfectly well and free from all disturbance, taking no medicine and in nowise restraining a very hearty appetite. During this period her weight remained nearly constant. Towards the end of 1902, however, she noticed that her clothes were again becom-

ing tight. In the winter of 1903 the dyspnea, palpitation and polyuria returned, and on March 13, 1903, she returned for treatment. She weighed 244 pounds and had a very large heart. Under varying doses of thyroid extract, but without any dietary or other restrictions, her weight fell to 230 pounds, with complete disappearance of all symptoms. Since that time she has remained perfectly well, requiring no further treatment and never weighing over 242 pounds.

Case 2.—Mrs. Y., housewife, aged thirty-seven. Her mother and one brother are very stout; otherwise her family history is negative. She has been married eighteen years, has had eight children, and has had no serious illness except as follows: at the birth of her last child, seven years ago, she became septic and acquired a parametritis which, four years later, necessitated a complete hysterectomy and ovariectomy. Two years ago a pain in the region of the coccyx made its appearance, which, in spite of all treatment, including four operations (at one of which the coccyx was removed), has persisted to the present day. She was always rather stout, but since the removal of her uterus and ovaries her obesity has increased rapidly. The patient presented herself as a stout, plethoric woman, making somewhat the impression of a neurasthenic, and complaining of a constant dragging pain in the region of the coccyx. Her obesity annoyed her chiefly on account of her appearance; it seemed to occasion no circulatory disturbance. On physical examination no visceral lesion could be made out, and no objective explanation of her coccygeal pain was found. Her urine was normal, and remained so throughout the treatment. At her first visit to the clinic, on May 15, 1903, her weight was $270\frac{1}{2}$ pounds. She was put on an Ebstein fat diet and was given small doses of thyroid extract (gr. $\frac{3}{4}$ t. i. d.) Under this regimen her weight fell from $270\frac{1}{2}$ pounds to 260 pounds in three weeks. Then, however, the patient declared herself unwilling any longer to submit to the restricted diet and, for the sake of experiment, she was allowed to eat what she liked, and the thyroid extract slowly and cautiously increased. During June, she took gr. $1\frac{1}{2}$ and during July gr. 2 and later $2\frac{1}{2}$, three times daily, her weight falling during these two months from 260 pounds to $244\frac{3}{4}$ pounds. Her tolerance of the drug was so perfect and her pleasure in her decreasing girth so great, that a still greater increase in the dose of the drug was ventured. From August 7th to December 9th she took gr. 5 of thyroid extract three times daily except when some intercurrent ailment demanded a change of treatment. The drug was well tolerated and reduced her weight from $244\frac{3}{4}$ pounds to $213\frac{1}{2}$ pounds. From this time on, with one brief interval, she took gr. $7\frac{1}{2}$ three times daily, until on March 14th of this year her weight had fallen to 200 pounds. The patient felt light and active, and if it had not been for the coccygeal pain, which remained unaltered, would have considered herself perfectly well. Since March she has been getting only small doses of thyroid extract (gr. 1 to 2, t. i. d.), and her weight has varied from 190 pounds to 195 pounds. She is very desirous of a further reduction of twenty or thirty pounds, and, considering the absence of any signs of thyroidism during her previous "cure," it might be justifiable to subject her to another course of thyroid treatment.

EDITORIAL COMMENT.

THE ST. LOUIS SOCIETY FOR THE PREVENTION OF TUBERCULOSIS.

In keeping with the activity shown in this work in other large cities, the organization of the St. Louis Society is now complete. The plan of association has been to make each branch as representative as possible and yet, in a manner interdependent. The chairmen of the different committees, with the general officers, constitute the executive committee, with power to act, and in turn has been appointed the "Committee for the Prevention of Tuberculosis" for the Civic Improvement League. This gives the society the sanction of the league without limiting its sphere of action. The generous acceptance of the executive committee as their special committee by the general officers of the league is a valuable endorsement of the movement.

Included in the committee on publicity is the editor of each St. Louis daily paper and several editors of medical journals. The advisory committee consists of the president or manager of each of the large St. Louis charities. The legal committee has for its members some of the best known attorneys of the city. The committee on inspection and the medical committee consist of representatives from all of the medical schools and universities with the health commissioner and members of the board of health, while the ways and means committee is composed of a number of well-known merchants and capitalists.

The outline of the plan of work is as follows:

1. A statement to the citizens that the death rate per thousand from tuberculosis in St. Louis is two and one-half times what it was fifty years ago—that at present rates one in seven now living in our city will die from tuberculosis—that education and sanitation through such efforts as we propose have reduced the death rate 40 per cent. in New York and Philadelphia which, if applied to St. Louis would mean the saving of 40,000 lives in the present generation, and an appeal for funds to carry on the work under the authority of the Civic League.

2. The distribution of a leaflet in several languages, through physicians, dispensaries and charity organizations describing the danger of communicating the disease, and the methods for its limitation, and request for the addresses of tubercular cases, especially among the poor.

3. Instruction of the inspectors of the charity organizations, who will be furnished with addresses of such cases in their district. They will be asked to explain the leaflet and if necessary will report to the committee on inspection.

4. The preparation of statistics as to places of greatest "house infection" and inquiry as to the cause.

5. Public lectures and instruction in schools with stereoptican demonstrations of the needs of the work.

6. The appointing of physicians in each district with the sanction of the board of health, who will agree to give an hour on certain days to poor patients who may come to them with a card from the inspectors.

7. The enforcement of the anti-spitting law—the investigation of unsanitary conditions in the tenement districts, and the effort to secure needed amendments to such laws as have to do with these conditions.

The question of a central dispensary and a city sanatorium cannot just now be discussed, but generous citizens have made offers of buildings and sites. This subject will probably be taken up in the autumn by which time it is hoped that the other work will be successfully instituted.

It must be distinctly understood that there is not the slightest intention of this association to intrude upon the relations of any physician to his patients, but that all physicians will be asked to aid the society by advice and effort. It is a work in which all should join, not only as a duty to others, but for self protection.

The following are the officers and committees so far as selected: Mr. F. E. Eaton, president; Mr. J. W. Lambert, treasurer; Mr. G. A. Blickhahn, secretary.

Executive Committee.—The chairmen of all regular committees.

Advisory Committee.—Representative officers of the large charity organizations.

Ways and Means Committee.—Mr. Jordan W. Lambert, chairman; Mr. Walter W. Birge, Mr. Arthur R. Deacon, Mr. Charles W. Nugent, Mr. George S. Strodman, Mr. George M. Wright.

Committee on Inspection and Conference.—Dr. J. R. Lemen, chairman; Dr. Henry J. Scherck, vice-chairman; Rev. Otto Baltzer, Dr. Walter Baumgarten, Dr. H. G. Nicks, Mr. Charles Meston.

Committee on Legislation.—Mr. Ashley Cabell, chairman; Mr. George R. Lockwood, Mr. Frank J. McMaster, Gen. George H. Shields, Judge Selden P. Spencer.

Publicity Committee.—Dr. Albert Merrell, chairman; Mr. August Bietz, Dr. H. N. Chapman, Mr. Joseph A. Graham, Mr. George S. Johns, Mr. Henry S. King, Mr. John F. Wagner, Dr. Chas. A. Snodgrass.

Medical Committee.—Dr. William Porter, chairman; Drs. H. Wheeler Bond, W. J. Harris, George Homan, Charles H. Hughes, Harry W. Lyman, Wm. A. McCandless, W. G. Moore, Jesse S. Myer, E. W. Saunders, John H. Simon, Jos. Spiegelhalter, Justin Steer, James H. Tanquary, George M. Tuttle, E. J. Goodwin.

PROPHYLAXIS OF PROSTATIC HYPERTROPHY.

The most commonly accepted theory of the etiology of prostatic hypertrophy—that it is of inflammatory origin, and that in fact, through constant changes, the product of inflammation, a condition is gradually produced which, in men about fifty years of age, is known as prostatism—naturally leads one to look to preventive measures to eradicate the tendency to hypertrophy in its incipency.

Working along these lines Le Fier (in *Le Progres Medical*, May 7, 1904) accepts this theory, and insists that these inflammations do produce the hypertrophy of the aged, whether the inflammation be infectious or not; that by definitely curing these perhaps slight but neglected inflammations, the lesions may be prevented from evolving into hypertrophy; and, even though the symptoms of prostatism have begun, properly conducted treatment can still cause the symptoms to disappear, if it does not effect a complete cure.

Le Fier has entered a field of much promise, and, with his reported cases to strengthen his position, will undoubtedly inspire interest. It is to be hoped that others will obtain the same gratifying results, and that these old, and often septic and uremic patients, will exist only in tradition. As our best methods of attacking the hypertrophy are now being resorted to earlier than formerly—that is before, if possible, the septic and uremic state is reached—we may perhaps find the true solution of this question by starting treatment still earlier, and eradicating the lesions before the hypertrophic stage is reached.

THE VISIT OF PROFESSOR HOFFA, OF BERLIN.

The members of the medical profession of St. Louis may feel just pride in the fact that a great surgeon, truly an illustrious man of science, from a foreign land visited us, gave a public lecture, and operated on a number of cases in our hospitals without being subjected to the unwelcome praise and unjust criticism of our yellow lay press. This is more impressive when we realize that Professor Hoffa is responsible for an operation for "congenital hip disease," as the newspapers called it during the visit of another notable man from Europe.

It is true, however, that the Berlin professor of orthopedic surgery, the man who has done more for this branch of surgery than any other in Europe today, gave a lecture on "Coxa Vara" in the German section of the Educational building at the World's Fair. The lecture was largely attended by members of the profession, and all who heard it were well repaid. During the following week Professor Hoffa saw most of the orthopedic cases under treatment in St. Louis, and his advice, freely given, was invaluable to the fortunate recipients thereof.

The significance of this visit, let us hope, is great. If it indicates that a great man may come here from a foreign country and go back with-

out taking with him an everlasting memory of interviews and interviewers, of misrepresentations, and of a people who believe the newspapers, we surely have just cause for congratulation.

TREATMENT OF SYPHILIS.

The Practitioner of July, this year, contains two excellent articles upon the treatment of syphilis at thermal springs, namely, Wiesbaden and Aix-la-Chapelle—the former by Dr. Touton and the latter by Dr. Anton Lieen. The trend of both these articles is practical, and places before the reader at once the advantages which are to be expected from treatment of this disease at resorts. In the first place, as they point out, the patient receives energetic treatment and is free to follow the directions given him; therefore the lesions more quickly disappear, and the patient soon regains his normal equilibrium. They prefer the inunction treatment, and therefore adopt it as their usual routine. The general idea and procedure is the same as that carried out at our own Hot Springs of Arkansas.

It must be borne in mind in the treatment of syphilis, especially in the graver types of the disease, that mercury is not alone a specific, and its action is comparatively useless unless combined with other measures, such as proper tonics, food, rest and climate, to combat disease. Upon this fact rests the rapid beneficial results produced at the various resorts, because at such places the patient is away from his business and social obligations, and the change of scene and air (which is always beneficial) comes to the aid of the local inunctions. Again, the patient attends such places for the purpose of getting well, and in most instances concentrates his energies and gives his whole time and attention to this object. These gentlemen do not claim any specific effect for their waters upon syphilitic diseases, and therefore their excellent dissertation is conservative, wise and highly practical.

THE INTEGRITY OF THE ABDOMINAL WALL AFTER OPERATIONS FOR APPENDICITIS.

The old operations undertaken for the relief of pathologic processes which necessitated incising the lower lateral abdominal segments, resulted in a surprisingly large number of postoperative herniæ, no matter whether these abdomens were sewn up or drained. Of course, this complication was not so frequent in the first as in the second class of cases. It was not until Professor Kocher called attention to the fact that injury to the nerves supplying the abdominal wall results in atrophy of the abdominal muscles that we saw fewer herniæ on account of the increased care in protecting these nerves. But the best results in clean cases were not obtained until we came to realize the full value of the

muscle and fascia splitting procedures, of which McBurney's has been that most frequently used.

But it seems to the writer that sufficient stress has not been laid upon the value of a similar reasoning in cases where drainage will probably be necessary. Many excellent surgeons, long since accustomed to splitting operations in clean cases, simply make a through and through incision and allow the wound to spread where drainage is to be used, and hernia results, according to von Mikulicz, in about two-thirds of the cases.

With this point in view the writer has been accustomed in recent cases to use the McBurney gridiron incision in all appendicitis cases, whether suppurative or not, and is more than delighted with the result obtained. Ample drainage can be secured, and if drains be not left in place too long, the various structures comprising the abdominal wall approximate one another and close the opening almost as perfectly as this is seen to occur automatically upon the operating table during the process of sewing up a clean case. Convalescence is thus shortened greatly, and when the patient first arises from bed the scar is seen to be much firmer than where a simple through and through incision is used.

As to the amount of room gained by such an incision we have only to state that it was recently amply sufficient in a child of ten years for the introduction of a moderate sized hand into the abdominal cavity, consequently there should usually be no difficulty upon that score. There may be certain reasons why such an incision must now and then be enlarged in this or that direction but the idea is usually worthy of serious consideration.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Differential Diagnosis Between Motor Insufficiency and Hypersecretion of the Stomach—(*Berliner Klinische Wochenschrift*, No. 27, 1904)—In an article bearing the above title, Strauss endeavors to show the advantages of his "layer ratio" method, described in 1896, over the recent method presented by Elsner. The latter attempts to draw definite conclusions from the relation between the solid constituents of the stomach contents and the entire quantity removed. He permits the contents to stand for twenty-four hours, after which time he determines in cubic centimeters the amount of solids as compared with the fluids.

Strauss permits the contents of the "empty stomach" to stand for two hours, after which he notes in percentage the relation between the solids and fluids. Observation shows that in normal cases solids constitute 5 per cent. of the entire amount, while in the cases with motor disturbances 20 to 50 per cent. is made up of solids. This method is applicable only in those cases in which free hydrochloric acid is present. Strauss does not consider this method sufficiently reliable to justify utter disregard of the microscopic findings, but insists that account should be taken of this too. He claims for his method several advantages over Elsner's method, chief among which is the amount of time required for this examination and its exactness.

Pepsin in Various Diseases of the Stomach—ROBIN (*Archiv fuer Verdauungskrankheiten*, Vol. x, Pt. iii) considers Hammerschlag's method of determining the amount of pepsin present in the stomach contents as the only one adapted to clinical purposes, being comparatively exact and easily executed. The normal amount of pepsin may be taken as 50 to 70 per cent. There seems to be no definite relationship existing between the secretion of HCl and pepsin. In the presence of the normal amount of HCl we usually meet with the normal amount of pepsin, but sometimes with an excessive amount and occasionally with diminished pepsin.

In superacidity we find in some cases a normal amount of pepsin, in some an increased and in others a decreased amount. In ulcer of the stomach the amount of pepsin is similar to that in cases of superacidity.

In mucous gastritis we almost invariably find a normal quantity of pepsin.

In the transition from ulcer of the stomach to carcinoma the amount of HCl is first diminished and in the course of time the pepsin is diminished.

Diseases of the central nervous system often exert an influence over the secretion of pepsin.

In carcinoma of the stomach the pepsin is most often diminished and varies between 0 and 36 per cent. However the amount may be normal in this condition.

The existence of a normal or increased amount of pepsin in cases in which there is a decrease of HCl does not justify one in excluding the possibility of carcinoma. In "achylia gastrica simplex" we meet with a total absence of pepsin as well as marked diminution.

On the basis of the pepsin alone, one can not differentiate between carcinoma of the stomach and "achylia simplex."

A complete cessation of the gastric secretions (achylia gastrica completa), independent of carcinoma, is met with in individuals from thirty-two to fifty-six years of age.

In concluding, the author shows the importance of distinguishing carefully between anachlorhydria, anaciditas, aepsinia and achylia.

Has Influenza Been a Causative Factor in the Increase of Appendicitis.—(*Journal of the American Medical Association*, July 30, 1904).—Marvel, after a brief review of the history of influenza and appendicitis, discusses at some length the relationship between the two. He recites a number of letters from authorities on the subject who favor his views. He concludes that the last five years show a marked increase over the previous five years. He believes that the accessory cavities are more frequently attacked, and when diseased are more likely to be aggravated in influenza than in other affections. Since the existence of chronic intestinal influenza is more than a probability, it is quite possible that influenza is often the cause of appendicitis.

The Influenza Bacillus as an Etiological Factor in Cholecystitis.—HAYROVSKY (*Wiener Klinische Wochenschrift*, No. 23, 1904) reviews briefly the literature on the influenza bacillus from the standpoint of its etiology in the production of both local and general infections. Cases are cited in which careful examinations have revealed the presence of this bacillus in endocarditis, enteritis, appendicitis, etc. The case reported by the author presented a typical history of gall stones. The operation showed the presence of stones and a sanguino-purulent fluid in the gall bladder. The course of the case was interesting in that the patient developed pneumonia on the third day. The bacteriological examination of the mucus removed from the gall bladder revealed the presence of the influenza bacillus and animal experimentation confirmed the findings.

The previous history was that of pneumonia about eight years ago. At the time of the operation there existed a slight bronchitis, which the author considered the initial infection. The infection of the gall bladder occurred through the swallowing of influenza bacilli.

Following the operation the fistula persisted, which, according to the author, is to be expected in infections due to the influenza bacillus. They interfere with tissue regeneration.

Herpes Zoster in Croupous Pneumonia.—(*Muenchener Medicinische Wochenschrift*, No. 25, 1904).—This report of Ruhl is based upon 481 cases of croupous pneumonia observed in the clinic of Prof. Bauer. He found

herpes present in 30 to 40 per cent. of the cases, being far more frequent in males than females. They appear usually on the third or fourth day and appear but once in the same patient. The region most often affected is that supplied by the second and third branches of the trigeminal nerve and especially along the infraorbital. It has been observed, however, in other regions, as the neck and extremities. In the very young and very old persons the eruption is rarely if ever present.

Herpes has been observed chiefly in the mild attacks of pneumonia, 90 per cent. of the severe cases remaining free from it. The author considers the eruption, therefore, of great prognostic significance.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Longitudinal Wound of the Carotid with Primary Suture and Healing.—LAUNAY (*Bulletin Societie de Chirur. de Paris*, Tome 30, No. 23).—The patient was operated upon for a large tumor on the left side of the neck, this same having originated in the lobe of the thyroid gland. During the separation of firm adhesions in the depths of the wound there was a sudden deluge of blood, and when the clamps had been applied and the field sufficiently cleansed to permit of observation, it was seen there was a longitudinal wound in the anterior aspect of the internal carotid just at the point of bifurcation. The extremities of the vessels were gently compressed with forceps while a fine suture was applied with a Milner's needle. But a single row was used and these not allowed to perforate all the coats. In less than two weeks the patient was up and around, and the pulsation could be plainly felt in the distal portion of the vessel.

Extensive Subcutaneous Laceration of the Abdominal Muscles.—EISENDRATH (*Annals of Surgery*, June, 1904).—The patient in question had been caught between the sides of two street cars which were passing in opposite directions upon tracks very close together. When seen a few hours after the injury there was a swelling about the size of an orange just above the crest of the ilium, and in consequence of this the diagnosis of a hernia through Petit's triangle was made. The skin was considerably bruised, but otherwise intact. The patient was not operated upon until sixteen hours after the injury, in deference to his own wishes, and after the skin was incised it was seen that all the muscular structures had been torn completely loose from the ilium, the skin being, in fact, the only structure which had prevented the escape of the viscera. There were contusions of some of the abdominal viscera, but no rupture. By way of repair the abdominal muscles were sutured to the gluteal fascia with kangaroo tendon, and the surgeon was gratified by the recovery of his patient and union par primum. Nine

months after the injury the patient was examined, but no symptoms found which could show that the result had not been perfect.

The First Dressing on the Battlefield.—STOCKUM (*Zentr. fuer Chirurgie*, No. 26, 1904).—The author proposes to treat all fresh injuries incurred in battle by simply pouring balsam of Peru into the wound. He does not advise any antiseptic or other form of wound washing, and, after he has poured in the chemical above mentioned, applies a simple absorbing and retaining dressing, which is to remain in place about three weeks. Compound bone injuries are to receive a splint in addition, and where the external wound is very small the balsam of Peru is to be injected into the compound fracture with the syringe. He goes extensively into statistics to show that this method has been attended with better results than any other form of first aid to the wounded, and this is especially interesting in view of the fact that the various methods are credited to various authors. The advantages of the method can be summed up as follows: 1. The wound does not have to be cleansed nor disinfected. 2. The person who applies the first dressing does not have to cleanse or disinfect his hands. 3. A sterile bandage is not necessary; any sort of cloth at hand will do the work. 4. The fact that the dressing can remain in place for three weeks greatly simplifies the matter of transport. 5. The person who applies the dressing does not have to be a surgeon.

Retrothyroid Pharyngectomy.—QUENU and SEBILEAU (*Revue de Chirurgie*, No. 6, 1904).—The authors have had two of these cases, and the operation has seemed to them so simple, as well as being possessed of so many points of advantage, that they feel it their duty to give the public the benefit of the procedure. The incision is to be made on the anterior border of the sterno-mastoid. After ligation of the superior thyroid artery, the inferior constrictor of the pharynx is easily exposed by blunt dissection by passing behind the lobe of the thyroid gland. By drawing forward the thyroid cartilage the wall of the pharynx is then easily put on the stretch, and can be opened with a stroke of the knife or scissors without difficulty. The authors lay especial stress upon the facility with which these various steps can be carried out, and, indeed, it would seem that the method must be a comparatively easy and bloodless one.

Recurrence of Malignant Tumors as the Result of Implantation.—WILMANN (*Beitraege zur Klinische Chirurgie*, Band 42, Heft 2).—The author cites numerous publications in which the separate authors have seen evidences of the well known fact that recurrence does take place as the result of knife or needle puncture when these instruments have been used in an operation upon malignant growth. To this history he is able to add a new case from the clinic of Prof. Kraske. The first operation was done for a carcinoma of the tonsil. In order to get at the growth from the outside it was necessary to saw the lower jaw in two and wire it again. The patient made an uninterrupted recovery from the first operation, and about four years later presented herself again for a second operation, this time the involvement being at the angle of the jaw, where a tumor the size of a goose egg marked the point of previous sec-

tion of that bone. At the second operation a liberal resection of the jaw bone was made, and the microscopical examination revealed that the second tumor was of exactly similar structure to the first, which had been removed four years previously. It is certainly of interest to note this latest addition to the literature of the subject, especially since a tumor originating in the soft parts made its secondary appearance in a bone which had been sawn in two and reunited at the first operation.

Sarcoma of the Alimentary Canal, with Report of a Case.—EDRED M. M. CORNER and H. A. T. FAIRBANK (*The Practitioner*, No. 6, 1904).—This extensive historical and statistical article hardly admits of a review. The material which it contains can scarcely be condensed into a short article. However, it may be of value to mention some of the points of permanent interest. One hundred and seventy-five of these cases have been collected, these being all of them primary. Males were affected in a ratio of two to one compared with females. About seventy per cent. of the cases occurred in the stomach and small intestine. The lungs were very rarely affected in secondary metastases, the liver and kidneys being most often invaded thus. Five cases of primary sarcoma of the appendix were seen, and in almost all of these the diagnosis was mistaken for that of appendicitis. The article deals largely with the surgery of the subject, and in every way exhausts the matter at hand.

Experiments on Increasing the Resistance of the Peritoneum Against Infection at Stomach and Intestinal Operations.—VON MIKULICZ (*Archiv. fuer Klinische Chirurgie*, Band 73, Heft 2).—The attention of Prof. von Mikulicz was first attracted to the possibilities in this line by the fact that a large number of such patients who survive an operation suffer from a certain degree of peritonitis. Either the germs which escape from the viscera are too virulent for such a peritoneum to take care of with ease, or else the patient has not the strength left to accomplish so desirable a result without any peritonitis taking place. These two possibilities suggest to the surgeon the further possibilities of combatting the affection, but since the intestinal contents cannot be rendered aseptic our only remaining possibility lies in increasing the native resistance of the patient, and this he purposes to do through an artificial hyperleucocytosis. A large number of experiments were performed upon guinea pigs with most striking results. As the result of the intra-peritoneal injection of saline solution, and by hypodermic injection of nucleines, it was possible to greatly increase the number of leucocytes found in the peritoneal fluid, and in consequence of this it was easily proven that the animals so treated withstood doses of infective material which proved fatal to the control animals. After these experiments had been done, von Mikulicz followed up the line of reasoning in abdominal operations upon thirty-one cases, and, though his results were highly gratifying, still he cannot definitely say that the specific treatment indulged in had had a definite bearing upon these results, since we know a narcosis alone may produce a pronounced hyperleucocytosis. Von Mikulicz, however, feels himself justified in expecting something, at least, from the hypodermic use of nucleines and from the treatment of the peritoneum with saline solution.

Hematoma of the Mesentery with Partial Torsion of the Same Intestinal Occulsion.—SENCERT (*Archives Provinciales de Chirurgie*, No. 6, 1904).—A child twelve years old suffered from what was diagnosed as chronic intestinal obstruction. In one more than usually severe attack he was sent into the hospital, but on account of temporary improvement in his condition he was not operated upon until it was too late to attempt any such procedure, and the autopsy revealed a most interesting condition. The high coils of small intestine were almost fixed in position on account of a surprising shortness of the mesentery, and proceeding downward the lower portion of the ileum was found to be firmly fixed to the vertebral column. The parietal insertion of the mesentery had been changed from a straight line to an S-shaped curve, and between the layers of this membrane there was a hematoma as large as a good-sized kidney, which had resulted in so much pressure upon the mesenteric vessels that they had been obliterated and all nourishment cut off from the segment of small intestine involved. This latter circumstance must in part be accredited also to the influence of torsion of the mesentery upon itself.

An Experimental Contribution to the Subject of Decapsulation of the Kidney.—EHRDT (*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Band 13, Heft 2).—This article proves experimentally that the theoretical deductions upon which Edebohls based his work are far from correct. Edebohls claimed that he did good by establishing a rich, new blood supply for the cortex of the kidney. The author says that nothing of the kind occurs, because in six cats he stripped off the capsule of the kidney and in all six saw a new formation of connective tissue around the organ, which same strongly resembled a newly regenerated capsule. Now, if no formation of new vessels took place around perfectly healthy kidneys in animals in good condition, how is such a thing to be expected in animals whose vitality is already lowered as much as is seen in chronic nephritis, which has been treated with Edebohls' procedure?

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

Diet in Nephritis.—H. KOSTER (*Nord. Med. Ark.*, Abt. II., H. 4, 1903; *Zentralbl. f. d. ges. Therapie*, June, 1904, p. 299).—The dietary treatment of nephritis, a disease for which little can be done by means of medicaments, has always excited the interest of physicians. There is even now much difference of opinion on this matter. The questions as to whether one should prefer a diet rich in proteids or poor, meat or no meat, red meat or white, are still open. In spite of the fact that many prominent clinicians have urged the employment of a mixed diet in nephritis, this view still meets with general opposition and the exclusive milk diet finds many advocates in all forms of the disease. The writer,

who had long had a general impression of the harmlessness of a mixed diet in nephritis, undertook an elaborate investigation of the subject. Only cases of chronic nephritis (over thirty in all) were studied, since there seemed no reason to question the value of a milk diet in acute nephritis. Four general dietaries were given. The first consisted of milk in sufficient amounts, with sage soup or oatmeal gruel; the second of milk, white of egg and starchy foods; the third milk, one egg, a moderate amount of white meat and starchy foods; the fourth of a general diet with meat both red and white. The patients were submitted to each of these dietaries in turn and their urine, as well as their general condition, closely watched.

In general, the following results were obtained:

1. In acute nephritis a rigid milk diet is indicated, and should be abandoned only after the cessation of all acute symptoms.

2. The same holds true for all acute exacerbations of chronic nephritis, as well as for impending uremia.

3. The treatment of chronic nephritis is best begun with a strict milk diet, or one confined to milk and vegetables. After the amount of albumen and sediment, which usually diminishes somewhat under this regimen, has been constant for some time, a mixed diet, including meats of all sorts, may be permitted.

4. This holds good for all forms of chronic nephritis, except amyloid kidney, in which greater caution is necessary.

5. Edema and ascites do not contraindicate a mixed diet if the patient desires it, but a certain amount of caution and closer observation of the patient and of his urine are necessary.

6. The same caution is important when there is marked hematuria.

7. It is a matter of entire indifference whether the nephritic patient be given white meat or dark.

8. It is often profitable to put a patient who is allowed a mixed diet, on a strict milk diet for a short time, as a distinct and permanent diminution in the amount of albumen excreted often ensues.

9. The amount of albumen in the urine is but slightly influenced by the amount of albumen in the food. The morning urine is usually poorest in albumen; that passed immediately after breakfast, the richest. There are, however, patients for whom this last rule does not hold good.

The Danger in the Use of Digitalis in Heart Disease.—JULES DANBY (*Bull. gen. de Therap.*, 15th December, 1903; *Therap. Monatsh.*, June, 1904, p. 315).—Even where it is clearly indicated, digitalis can prove a source of danger to the patient. Danby has seen two cases of sudden death in cardiac patients following the administration of digitalis, and calls attention to the danger to which individuals with atheromatous arteries are exposed as a result even of small doses of this drug. Both patients were about sixty years old and suffered from cardiac palpitation, edema of the lower limbs, small and irregular pulse, dyspnea, etc. Digitalis was prescribed in the following form:

Rx	Inf. fol. digitalis.....	1.2 ad 270.00
	Extr. opii.....	0.10
	Syrupi tolutani.....	30. 0
M. et S.—Take one tablespoonful every two hours.		

As a result of this therapy, the symptoms enumerated above disappeared rapidly, so that the patients considered themselves cured. Both, however, died suddenly, while perfectly quiet, without having exposed themselves to any of the agencies that might be expected to bring on an apoplexy. One of them, indeed, was surprised by death while asleep at her husband's side. The explanation of this sudden death, says the writer, cannot be found in one of the usual causes of cerebral embolus or hemorrhage. We must fall back upon the increase in blood-pressure produced by the administration of digitalis. Danby expresses his surprise that hitherto, so far as he knows, no one has held the digitalis prescriptions responsible for such accidents. It is his belief that they are not at all rare. While it need not be admitted that death often overtakes cardiac patients suddenly, just when a condition of dilatation has been replaced by one of good compensation, this unquestionably may occur at times. The fact that Danby observed two cases within a short period of time speaks against an excessive variety of this accident. There is need of emphasizing the great caution that should be observed in prescribing digitalis for patients with advanced atheromatous degeneration of the arteries, with sclerosis of the cerebral vessels or in whom there is reason to assume the presence of an endocarditis verrucosa, either fresh or old.

The Inaccuracy of the Teaspoon.—MILLER (*N. Y. and Phil. Med. Journal*, March 19, 1904, p. 545; *Therap. rev.* May, 1904, p. 172).—Miller found that the same teaspoon, when filled to what they understand as a level teaspoon, was made by three different persons to hold 55, 65 and 85 grains, while the quantity understood by the level tablespoonful varied from 168 to 215 grains. Even when measured by the same person there was a difference of 10 to 20 per cent. When in addition to the haziness of the term, level teaspoon, we remember that the teaspoons ordinarily used vary quite 100 per cent. in their capacity, it is evident that they represent a very inaccurate way of measuring drugs.

Ill Effects of Mesotan.—LEO CARO (*Therapie der Gegenwart*, June, 1904, p. 287).—The writer reports four cases in which mesotan was used, not only without any good effect, but with the result of adding to the patients' original ailment a new and even more disagreeable source of discomfort.

Case 1.—Acute articular rheumatism affecting the right knee-joint. One teaspoonful of a mixture of equal parts of mesotan and olive oil was rubbed into the skin over the joint and an absorbent cotton dressing applied. The following night an excessive burning pain set in at the region so treated. The entire leg was covered with a scarlatina-like rash, which lasted six days and was followed by desquamation.

Case 2.—An elderly lady with lumbago. Mesotan was rubbed in and caused so severe a dermatitis that its use had to be abandoned.

Case 3.—A young man with a rheumatic affection of the right shoulder. After mesotan had been rubbed in twice a bullous dermatitis appeared, covering the chest and back.

Case 4.—An old man, with a chronic double omarthritis. Having read about mesotan he rubbed about half a drachm into the right shoul-

der, once daily for three days. This was followed by a severe dermatitis of an urticarial type.

On the basis of these four cases the writer demands the abandonment of so irritating a drug, and the substitution for it of internal medication.

It must be added, however, that the ill results obtained by the writer can by no means fairly be laid at the door of mesotan itself, but must be ascribed to the improper method employed. In the first place mesotan should never be used undiluted, as seems to have been done in the last three cases. It must always be diluted with at least equal parts of olive oil, oil of lavender, or, perhaps better still, with alcohol. In the second place, it is equally incorrect to rub it into the skin. It should be sparingly painted on—best with a camel's hair brush. Applied in this manner and in this dilution it is still very effective, and as reports from Prof. Leyden's clinic show (*Niedner, Munch. Med. Wochenschr.*, 1904, No. 15), produces a dermatitis only once in several hundred cases.

Scopolamin Hydrobromate in Internal Medicine.—K. LIEPELT (*Berliner Klin. Wochenschr.*, No. 15, 1904).—The writer has found scopolamin hydrobromate useful in the treatment of delirium tremens, in febrile delirium, as in typhoid fever or in pneumonia, and in severe motor irritability from other causes. Properly administered it is superior to either chloral hydrate or morphin and never causes unpleasant after-effects.

It should be given in a solution of 0.01 to 10 parts of water (*i. e.* 1:1000). The solution must be freshly prepared and perfectly clean and is given hypodermically. The injection is painless. The solution is given in doses of 0.4—0.8 gram, corresponding to 0.0004—0.0008 of the drug, which usually produce a prompt sedative effect, lasting from three to five hours. The drug was always well borne, even in the maximum dose of 0.001 gram.

The Nature and Treatment of the Painful Empty Stomach.—FRANZ EERLICH (*Muenchener Med. Wochenschr.*, 1904, No. 20, p. 882).—In all of the text-books the epigastric pain that comes on whenever the stomach is empty is considered as characteristic of a nervous gastric affection. The writer reports eight extremely interesting cases that prove that while the "painful empty stomach" may, perhaps, sometimes indicate a gastric neurosis, this is by no means always the case. They show clearly that this symptom may point to a gastric ulcer.

The first four cases suffered subjectively only from severe epigastric pain, that disappeared on taking food. They came for treatment on account of sudden, severe gastric hemorrhage. The usual treatment for gastric ulcer resulted in complete recovery. The other four cases had no gastric hemorrhage, but were almost certainly cases of ulcer on account of typical points of tenderness in the epigastrium, and to the left of the eleventh dorsal vertebra. One of these underwent a Leube cure with complete recovery.

The histories (for which the reader must be referred to the original article) indicate very clearly that in every case in which there is pain when the stomach is empty, relieved by taking food, the possibility of gastric ulcer must be kept in mind. Where a course of treatment

directed towards a correction of the neurasthenia is without avail, an ulcer cure should be tried.

A Case of Medullary Leucemia Successfully Treated by Means of X-Rays.—AHRENS (*Muench. Med. Wochenschr.*, 1904, No. 24, p. 1054).—Since Senn published the first cure of a case of leucemia by means of the x-rays, a number of similar results have been reported by American clinicians. Ahrens adds a suggestive case to the rapidly growing list. The patient, a man twenty-seven years old, apparently in perfect health, caught a severe cold during the military maneuvers, being forced to lie prone on the wet grass after a long, heating run in a drenching rain. Rigors, fever, dyspnea, pain in the right arm ensued. He grew gradually weaker, pain along the sternum and the long bones developed, and a rapidly growing abdominal tumor made its appearance. When first seen, one and a half years after the exposure, an advanced medullary leucemia was found, with a huge splenic tumor. The blood contained as many white corpuscles as red. The patient was given oxygen and arsenic, and in addition was subjected to the x-rays. A hard tube with powerful rays was used; the spleen was exposed to the rays for five to ten minutes daily, and each of the long bones as well as the sternum one to two minutes daily. The result was astounding. After the twenty-fifth sitting the spleen had shrunk to half its size; after the fortieth the blood had become normal, the relation of white to red corpuscles being 1:525; after the fiftieth the spleen was no longer palpable, the anemia had disappeared, and the patient might have been considered entirely cured.

This condition lasted somewhat over a month; then, however, the patient (who had returned to work) was again exposed to cold and wet after having been greatly overheated. When seen four days later he presented the typical picture of an acute leucemic relapse. The spleen had greatly enlarged, and while at this visit there was no marked leucocytosis, the number of leucocytes found five days later was twenty-two times as great as at the first visit. He was again exposed to the x-rays, but although the spleen was somewhat diminished in size thereby, the condition of the blood was not noticeably influenced. High fever set in, the patient became cyanotic, and died with the signs of chronic suffocation. At the autopsy, leucemic spleen, liver and bone-marrow were found. The spleen weighed six and one-half pounds.

It is to be regretted that in this case, as in the others that have been reported, no exact studies of the changes in the blood during the treatment were made. While the cure was not permanent, the results were so much better than have been obtained by other methods that they encourage a more general use of the x-rays in medullary leucemia.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

CARL FISCH, M. D.

The Neutrophilous White Blood Corpuscles in Infectious Diseases.—JOSEPH ARNETH (Jena, Fischer, 1904, 200 pp.).—The revolutionizing (author!) discoveries which Arneth exposes in this book with an assertiveness and outspoken directness seldom found in medical literature, are made by the study of the morphologic condition of the neutrophilous cells in health and in infectious diseases. In this study only the size and the character of the nucleus are considered; practically the latter is all that is needed, and from its mononuclearity or polynuclearity all of these cells are divided into about five classes. The percentages of these classes in normal blood appear to be nearly constant, while in infectious diseases (with and without leucocytosis) they are considerably changed, a fact that is established in the given case by the study of one hundred cells and by the tabulation of the result in a blood picture. According to the prevalence of forms with undivided nucleus or of forms with divided nucleus (two to five pieces), the condition of the blood picture is called abnormal or normal. In this way Arneth has found in numerous tedious investigations that in the different forms of infection the blood picture shows characteristic changes in each of them, and that in all of them during convalescence there is a quicker or slower return to the normal percentages. In infections usually accompanied with leucocytosis, those cases without leucocytosis show the same changes in a more pronounced degree. It is very remarkable that in essentially benign infections, like measles and varicella, for instance, they are most pronounced, and take a long time for complete restitution.

This is the essence of the new method. Unfortunately we cannot follow the author into the detail of his teleologic ratiocination. The basis for it is, of course, the alleged important role that these leucocytes play as protective means for the infected organism. Aside from the fact that this question is by no means definitely answered (and here, for instance, the leucopenia of many infectious diseases remains, in spite of the author, an absolute contradiction), the main assertion remains to be confirmed, that the different nuclear arrangements in the neutrophils of the circulating blood are the expression of their functional activity. We do not know anything about it, and to consider the form most numerous in normal blood as the perfect representation of the mature leucocyte is simply an assumption. We do not know, furthermore, anything about the length of the period of existence of the single leucocyte, nor do we know whether the leucocytes in the circulating blood undergo any progressive or retrogressive changes whatsoever. The speculation of the author, therefore, on the infinite multitude of leucocytes destroyed, for instance during the course of a pneumonia, lacks the proof of an exact determination. We can just as well conclude that in pneumonia the so-called immature cells are the ones that assist the organism to combat the infection. Aside from the danger involved in any speculation on

physiologic problems, based on only morphologic factors, the determination of the latter in this case seems by no means unobjectionable. The differentiation of the cells was done from spread and dried specimens; on purpose, the more specific hematoxylin was neglected for the very indefinite nuclear stain of the triacid. Where nuclei are the main object, the most definite nuclear stain should be used. Neglected, too, was the fact that our spread and dried specimens show more or less in every constituent cell of the blood only an artefact. This does not only obtain for the red cells, but more so for the leucocytes, and it needs only to inspect a blood stain prepared after bichloride fixation or the well fixed section of a pneumonic lung, with its engorged vessels, to show that the dried specimen does not give a true impression of the morphologic condition of the cells and of their nucleus. It cannot be denied that Arneth's book contains points of value and worthy of consideration, but it will not remodel our knowledge of the changes of the corpuscular elements in disease, nor will it influence the investigation of immunity problems, as the author predicts.

About the Etiology of Malignant Tumors.—G. KELLING (*Muench Medic. Woch.*, 1904, Number 24).—In a scientific journal the article of Kelling ought not to be mentioned, if it were not for the evidence it brings for the absolute helplessness with which we stand in view of the tumor problem. The honest declaration of the English cancer commission that in spite of the immeasurable amount of work done during the last few decades on this subject, our knowledge has not advanced a step, that we are in the dark, just as were the older writers, and that altogether new ways must be found to throw light into this darkness will certainly conform to the convictions of all unprejudiced thinkers. It is true that the splendid investigations of Wilms, Schlagenhauer and Pick have, at least for a certain class of tumors, these, too, malignant ones, made very probable their congenital origin by the separation of cells from their physiologic connections during the fetal development. The question, why such cells are liable to form tumors, has also remained unanswered; the explanations advanced are purely hypothetical. The same obtains for Ribbert's views, who, in his "Geschwulstlehre," on this basis accounts for the origin of all tumors, benign and malignant. A perusal of this book plainly demonstrates to what degree pathologically and anatomically well established facts must be bent and changed in shape to fit the theory in all cases. The tumor question is as yet an absolutely unsolved enigma, as obscure and inaccessible to solution as hardly another problem of biologic character. The methods so far employed do not suffice; new methods must be discovered, or, like in other questions, a lucky chance must offer itself. There is only one thing that, in the discussion of tumors, never has been disputed, that is the origin of the tumor cells from the cells of the individual that has a tumor. It has been the endeavor of pathologic anatomy since the days of Virchow and Cohnheim to establish this connection. Any theory attempting to solve the origin of tumors must figure with this fact. It seems that even this fixed point is beginning to be subordinated to the etiology question in certain publications. But nowhere has this neglect shown itself more accentuated and sharp than in the paper of Kelling. Throwing aside the

total of the work done on malignant tumors, he conceives the idea that these tumors arise from fetal cells, transplanted into the tissues of another species. The young embryos of hens' eggs were triturated by him and injected into animals; in five out of seven cases he saw malignant tumors arise at the location where the injections were made; malignant adenomata, carcinomata, spindle cell sarcomata, etc. From the examination of tumors of animals he suggests that even the embryonal cells derived from avertebrates may give rise to the growth of tumors. Not satisfied with this result, he tries to bring by a bio-chemic method an additional proof. He injects triturated carcinoma tissue from a case of gastric carcinoma with ovarian metastases into rabbits, and obtains a serum that not only precipitates the carcinoma extracts, but also human blood serum and ovalbumin. The patient had been fed, together with other food, with raw eggs, and the fact that the rabbit serum precipitated an egg-white solution is evidence enough to the author that she carried in shape of carcinoma nodules a great amount of chicken meat in her body.

It would not be worth while to enter deeper into the reasoning of the author. That the paper was published in a high-standing journal explains itself by the fact that the latter, in a way, was compelled to give it space on account of the connection with the society before which it was read. Perhaps, too, this journal wanted to contribute to a stimulation of midsummerly lassitude of its readers. It is, however, altogether out of place to comment on this paper in a serious way and to urge careful controlling experimentation, as has been done by some of our prominent medical journals. Kelling's work may be read for the purpose of exhilaration only.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

The Results of Artificial Interruption of Pregnancy, with Special Consideration of the Fate of the Child.—CARL A. LOREY (*Arch fuer Gynaek*, Vol. LXXI).—In a monograph, dealing with the treatment of contracted pelvis, Kroenig stated that the induction of premature labor was unjustifiable on account of the high fetal mortality attending such a procedure. This claim of Kroenig has been widely quoted in obstetrical literature. It would seem that Lorey brings in his paper convincing proofs that Kroenig's views were erroneous. He deals with one hundred inductions of labor produced in eighty-two patients with contracted pelvis. Of the one hundred children seventy-four were born alive, fourteen of whom died within ten days. This certainly appears to be a high mortality. The writer shows, however, that these same eighty-two women had previously born two hundred and seven children, with a mortality in the first ten days of 78 per cent., as compared with 40 per cent. after premature induction of labor.

Lorey next considers the subsequent fate of the children. He ob-

tained reliable information concerning fifty-six of the sixty children; he calculates a mortality of 21.5 per cent. for the first year, as compared with an average mortality of 24 per cent. in the town of Halle. The writer found that the fetal positions at the time of delivery and the operations which were performed had practically no influence upon the mortality of the first year; that, however, the date at which labor was induced plays a very important part. The main influence is exercised by the feeding, the breast-fed children being decidedly in the advantage. The writer concludes that premature birth does not injure the child, and that Zweifel's statement, that of a hundred premature babies not one is alive at the end of the first year, is unwarranted.

For obvious reasons the results are different when pregnancy is interrupted on account of a maternal disease. In a group of cases of this kind only 15.8 per cent. of the children were found alive after the end of the first year.

The Weight of Newborn Children in Cases of Contracted Pelvis.—S. CHOLMOGOROFF (*Russky Wratsch*, No. 8, 1904, rev. *Muenchn. Med. Wochenschr*, No. 25, 1904).—The writer investigated the interesting question whether there exists a relation between the size of the newborn and the size of the pelvis. For this purpose he examined one thousand patients with normal and one thousand with contracted pelvis, and determined in all of these cases the weight and length of the babies. He considered a pelvis to be contracted when the *conjugata externa* was found to be below 18 cm. or the *conjugata diagonalis* below 12 cm. The conclusions drawn from his observations are as follows: 1. The weight of children born by women with a contracted pelvis is smaller than that of women with a normal pelvis; 2. In cases of narrow pelvis the children are found to be shorter than normal; 3. The weight of children born by multiparæ with contracted pelvis, is larger than that of primiparæ with narrow pelvis; 4. In cases of narrow pelvis the proportion of male children is larger than under normal conditions.

Rupture of the Membranes Without Interruption of Pregnancy.—H. MEYER-RUEGG (*Zeitschr. fuer Geb. und Gyn.*, vol. 51).—French writers first called attention to the fact that even after rupture of the membranes and escape of the amniotic fluid pregnancy may continue. In other cases only the amnion breaks, while the chorion remains intact. The author reports a new case of this variety, the twelfth in literature. The child was born in the seventh month of pregnancy. It was malformed and crippled and died soon. There are thirteen cases recorded in literature in which the fetus was expelled fifty to one hundred and twenty days after the rupture of both membranes with escape of the amniotic fluid. The writer describes a new case of this kind. The only characteristic symptom of these cases is hydrorrhea. The escape of fluid may be continuous or in spurts, and as much as one liter may be discharged in twenty-four hours.

The Justification of Vaginal Panhysterectomy in Uterine Carcinoma.—F. SCHAUTA (*Monatsschr. fuer Geburtsh. und Gynaek.* Bd. XIX., H. 4).—This is a most important contribution to the problem still under discussion,

whether the abdominal or vaginal way is preferable in the extirpation of the cancerous uterus. While of late the abdominal operations undoubtedly have gained in favor, some operators still adhere to the vaginal route. Strong support is furnished in this paper for the justification of this route. Two chief advantages are claimed for the abdominal operations, the possibility of removing diseased lymph glands, and of extirpating the parametria in a more thorough manner.

In the first section of the paper Schauta proves that even the abdominal methods do not permit of an extirpation of all infected glands, and therefore cannot be considered radical. The writer bases his proof partly upon the views and observations of numerous surgeons, as recorded in literature, and partly upon very painstaking investigations made by himself on sixty bodies, subjects of uterine cancer. Eleven hundred and eighty-two glands were divided up in serial sections, about one hundred and sixty thousand of the sections being stained and examined. It was found that only in a very small percentage of cases would it have been possible to remove all the diseased glands even by the most radical abdominal operations. Incidentally a claim of previous investigators was found to be well justified, namely: that large, hard, infiltrated glands are frequently not carcinomatous, while the very smallest glands may be infiltrated with the new growth. Another point of considerable interest and practical importance is the fact that carcinomatous glands secondary to uterine growths may long remain encapsulated, may lie latent for long periods, or *even undergo complete necrosis after removal of the primary growth*. (Confer Lomer: *Interstate Med. Journ.*, January, 1904, p. 42).

In the second portion of the paper Schauta deals with the claim that the abdominal methods offer considerable advantage in the extent to which parametric tissues can be removed. He repudiates this claim. In his opinion the vaginal panhysterectomy, with Schuchardt's para-vaginal incisions, permits the safe freeing of the ureters and the removal of the broad ligaments up to the periosteum of the pelvic bones. The great advantage of all the vaginal methods is, however, the undeniable fact that they are attended by a smaller immediate mortality than abdominal operations. The writer concludes that the vaginal is the route of choice in the removal of the cancerous uterus.

Recto-Vaginal Fistula Originating Sub-Coitu.—SHEFTEL (rev. *American Medicine*, July 2, 1904).—The possibility of serious injuries from the first sexual intercourse has been doubted by many authorities, in spite of reports to the contrary. The author reports an original case. The woman had a narrow vagina, and the first coitus resulted in a tear through the vagina below the hymen into the rectum. A recto-vaginal fistula was formed, and was closed by operation a year later.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

Capillary Pulsation in Urticarial Wheals.—CARPENTER (*Brit. Jour. Chil. Dis.*, July, 1904), in commenting on the commonness of urticaria in childhood, calls attention to the fact that marked capillary pulsation in the wheals, with blanching and blushing, synchronous with the heart beats, may not infrequently be seen. The phenomenon may be found eventually where no aortic lesion exists. He reports a case of urticaria in a boy of two and one-half years, which lasted only one day, in which the pulsation in the wheals was very distinct.

Case of Perforated Gastric Ulcer in a Boy of Thirteen.—At a recent meeting of the Society for the Study of Diseases in Children, Cheyne reported this case (*Brit. Jour. Chil. Dis.*, July, 1904):

The patient had enjoyed good health until the onset of the illness, which was marked by severe abdominal pain about the umbilicus. He rapidly became worse, and after consultation, the same evening, it was decided to operate. The appendix was examined, found to be diseased, though not actively, and was removed. As the signs pointed to some rupture, the rest of the abdomen was explored, and over the front of the stomach some turbid fluid was found, and gas bubbled up. On further searching a small, round perforation was found on the anterior surface of the stomach about an inch from the cardiac end, from which gastric juice and gas were escaping. The ulcer was treated in the usual way, and the boy made an uninterrupted recovery.

The reporter referred to the rarity of this condition at this time of life, apart from tubercular ulceration.

Another point of interest was that, although a diseased appendix was found and removed, the presence of gas in the abdomen showed that there must be some other lesion. Unless this sign had been regarded as conclusive, the ulcer would have escaped detection, because its situation was remote, the intestines and stomach had been previously examined and very careful searching was required to find it.

In the ensuing discussion Parkinson referred to a case of his, where death, in a child of two years, was due to a perforating gastric ulcer, and where the postmortem failed to reveal any trace of tuberculosis in any part of the body.

Diphtheritic Paralysis Cured by the Use of Antitoxin.—COMBY (*Arch. de Med. des Enf.*, July, 1904), in discussing the question of the toxins of diphtheria, says that we cannot be sure how long they may remain active and virulent in the organism. The fact that in some cases diphtheritic paralysis comes on very early, in others very late, would indicate that the prolongation of action of the toxins differs very materially in different cases. He considers that it may easily be possible that the toxins may remain in the system for weeks, or even months. In this

way the very late paralyses can be explained. On this hypothesis the use of antitoxin in the treatment of diphtheritic paralyses appears to him to be thoroughly justified. He admits that some writers deny that antitoxin has any value in the treatment of diphtheritic paralyses, and quotes Sevestre, who, in his cyclopedic article in the *Traité des Maladies de l'Enf.*, takes strong ground against the treatment. Sevestre believes that antitoxin, by virtue of its action on the diphtheritic toxins, may prevent the development of a paralysis, but cannot affect the existing one. Comby insists that theoretic objections cannot avail against existing facts, and believes that the treatment should be more generally adopted. He calls attention to the fact that except for ephemeral rashes and fugitive joint pains no bad effects have ever been reported from the use of antitoxin, so that the harmlessness of the treatment is one justification for its use. He has collected six cases from the literature, one of them his own, of rapid cure of diphtheritic paralysis by the use of antitoxin.

He now reports four additional cases in detail, two of them very severe, in which the injection of antitoxin was followed by speedy recovery. All of these were cases of paralysis of the palate.

He believes that all cases of diphtheritic paralysis should receive injections of antitoxin, whether they have received antitoxin during the height of the disease or not, and he insists that theoretic objections ought not to weigh against empirically proven facts in this question.

The Accidents After Injection of Diphtheria Antitoxin—Their Harmlessness.—COLDEFY (*These de Paris, Arch. de Med. des Enf.*, July, 1904).—The accidents of serum injection could be carefully studied in this series of cases, eighty-one, because these children did not have diphtheria. The injections were made in children in the measles ward of the Hospital des Enfants-Malades.

These "accidents" are of frequent occurrence, 15 to 20 per cent. of all cases injected. They are always mild and ephemeral. They consist of various skin eruptions, exacerbations of temperature, mild and fleeting albuminuria, muscular and articular pains, more rarely angina, with or without adenopathy, diarrhoea. Occasionally vulvitis, swelling of the eyelids, abscess, and temporary increase in choretic movements have been noted.

Several of these manifestations may be associated, but the resulting syndrome is never severe or of long duration.

The skin eruptions form the most frequent accident, constituting 70 per cent. of the total. They ordinarily occur some time within the fifteen days following the injection, and may be accompanied by rise in temperature. Most often these rashes are urticarial, though they may be polymorphous, or even distinctly purpuric. Scarlatiniform or measles rashes may give rise to errors in diagnosis. In tubercular patients severe and more lasting febrile reaction may follow the serum.

Severe albuminuria cannot be ascribed to the antitoxin. Indeed, given early enough, it prevents diphtheritic albuminuria. Antitoxin has no effect on pre-existing renal lesion.

The arthralgias, though painful, are wholly without gravity.

Abscess is rare, and is always due to faulty technique in injection.

Serious or fatal accidents have *never* been really *proved* to be actually due to the antitoxin.

The author concludes that antitoxin, the sovereign remedy in diphtheria, should be used *early in every case*. If the diagnosis is in doubt, the serum should be given without waiting for a bacteriological diagnosis. Prophylactic injections are earnestly advocated, especially in families, schools and hospitals, where there is reason to suspect contagion.

It is better to make a great many useless injections rather than to expose one patient to the dangers of delay.

ORTHOPEDICS.

IN CHARGE OF

NATHANIEL ALLISON, M. D.

Irreducible Anterior Dislocations of the Hip, and Sub-Trochanteric Osteotomy.—GROSS, Nancy (*Revue d'Orthopedie*, May, 1904).—Anterior dislocations of the hip are rare in comparison with dislocations backward. The writer gives Hamilton's series, in which, out of 104 dislocations, only 13 were anterior; also the statistics of Cooper, Malgaigne, Weber, Billroth and Burns, in all 210 cases of luxation; of these only 49 were thyroid.

In speaking of the operative treatment of this condition the writer recites the cases in detail that he was able to discover in the literature, 11 cases in all, including one that he operated upon himself.

The operations done were arthrotomies, resections of the femoral head, and subtrochanteric osteotomy.

Arthrotomy has given very poor results; it is a very severe operation, and of the reported cases a greater number died than outlived it. The case reported that did withstand the operation had ankylosis, atrophy, lordosis and pain.

Resection of the femoral head has produced much better results, though the operation is quite a serious undertaking; the cases reported were all benefited.

The case reported by Gross is that of a man thirty-four years old, who had a dislocation forward of the right hip of ten months' standing. He decided to operate, choosing the resection of the head as the best proceeding. On cutting down on the head he found it so securely bound down that he closed up his operative wound, waited for it to heal, and then did an osteotomy just below the trochanter. The limb was brought down and union took place. The result of this operation was excellent, and the writer recommends it as the best on account of its simplicity and the lack of danger which accompanies it.

Some Clinical Notes on Tuberculous Arthritis in the Young.—ROBERT JONES, F. R. C. S., Liverpool (*Edinburgh Medical Journal*, 1904).—This paper was read by invitation before the Edinburgh Medico-Chirurgical

Society. Mr. Jones emphasizes the fact that the paper deals with tubercle in the young, and the treatment described is meant for the young, not for adult cases where the disease is much more malignant, and often requires more heroic methods.

He reviews the methods of Mr. Thomas, who was the pioneer of the mechanical and physiological rest idea, stating that during fifteen years of close association with and observation of Mr. Thomas' treatment he never saw him excise a joint, nor did the hundreds of cases which Mr. Thomas treated present as high a percentage of abscess formation as cases reported by other observers. Since the death of Mr. Thomas, fourteen years ago, Mr. Jones has followed his teaching, and now sees no need to modify essentially the doctrines he taught.

Methods of diagnosis are rehearsed, especially as applied to the hip, and the tables of Lovett and Kingsley are given. The splints designed by Mr. Thomas are fully described.

Abscess treatment should be expectant. Mr. Jones says that experience has taught him that it is better to leave the tuberculous abscess alone as long as possible, and when it is necessary to open an abscess it should be done with great caution against infection. Never should the Volkmann spoon or irrigator be used to break down the sac wall which provides so excellent a barrier against infection.

He recommends an operation for lessening or obliterating adduction with pelvic tilting. This operation consists of sawing across the femoral neck with a specially designed saw, and placing the limb in strong abduction until union has taken place.

A Review and Study of Some Recent Writings Upon Arthritis and Kindred Disorders.—F. J. POYNTON, M. D., F. R. C. P., London (*The Practitioner*, London, June, 1904).—Each year it is becoming more apparent that many different infections will produce a rheumatoid condition of the joints. Tubercle, syphilis, gonorrhea and similar infections will produce this result. So the blanks that did exist in the medical mind on these affections are being filled gradually by investigations. Such investigations the writer regards as very hopeful signs which will stimulate all the workers in this field.

Rheumatic Fever, Muscular Rheumatism, Rheumatoid Arthritis, Gout, Syphilitic Arthritis and Tubercular Arthritis are the headings of the sections included in this article. A review is given of the more recent writings on these subjects.

Perhaps the most interesting part of the article is that devoted to the question of the bacteriology of these conditions—the fact that a diplococcus has been found which, even in exceptional cases, would reproduce the disease in the rabbit is important.

Reference is made to the cases treated by Schmidt, who used a serum and noticed a definite improvement in six out of fifteen cases.

The nomenclature of rheumatism and the allied diseases is still in a state of confusion. This is evidently due to two difficulties—one dependent upon doubt as to whether these forms of arthritis are due to one or many causes; and the other a result of an old classification, which attempted to put in a special class those cases which showed changes in the bones and cartilages.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

The Relation of Epilepsy, Chorea and Other Motor Disturbances of the Nervous System to Eye Disease.—SACHS (*Medical News*—July 30, 1904).—Sachs thus considers his views on the matter. Summing up all that can possibly be said with due regard to the truth, it may be stated that the relationship between ocular affections and epilepsy, chorea and convulsive tic, may be a close one in the minds of some faddists, but it must remain a very remote one in the minds of those who have no especial ax to grind and no particular therapeutic territory to exploit.

Eye Strain and the Psychoses.—DANA (*The Medical News*, July 30, 1904).—There seems to be at stated intervals an acute epidemic of this fixed idea and it is well that at such times there are expressions of such logical and well trained neurologists to combat them as are contained in this number of the *Medical News*. There should always be in the rejoinders to the absurd claims of the oculists who persist in taking the position that there is a close connection between minute defects in accommodation and the most complicated nervous diseases, something of boredom and something of tolerant humor.

In this spirit the attitude of the so-called oculist-neurologist can best be met. These two articles both contain the necessary amount of chary and the necessary amount of incontrovertable facts. Dana says that after sixteen years watching he has found hardly any cases in which eye strain is an important and direct factor in establishing even a minor psychoses. Perhaps after all the most real psychoses connected with eye strain is that shown by a group of enthusiastic oculists who have become possessed with the idea that eye strain forms the background of most pathological conditions. He does not think that our mental balance and nervous well-being are so entirely at the mercy of slight defects in an organ that has been perfected by milleniums of misuse and use.

Polyneuritis.—METTLER (*Illinois State Medical Journal*, August, 1904).—This paper is of interest because it brings out clearly some of the points in classification of the neuritides that will aid very much in understanding them. There has been a good deal of dogmatic description in regard to the classification and the differential diagnosis of this disease and it is well to know that the classic signs are not always necessary for the differentiation of this disease from other of the closely allied peripheral troubles. The question that always confronts the neurologist is whether in a given case the disease is strictly peripheral or if the spinal cord or in some cases the brain itself is not involved in the process which is so often of a toxic or chemical nature. The increasing numbers of observations bearing upon this point go to show that multiple neuritis is not so much a disease of itself as a mere local

expression of a much more extensive intoxication of the nervous system. The classification of Stintzing is adopted by the author; it is as follows: (1) Neuritis of an inflammatory origin, including the neuritides of leprosy, beri-beri and certain forms of unknown origin; (2) neuritis of degenerative origin. These are divided into those of toxic and those of infectious nature, those of constitutional and cachectic origin and those of systemic origin; (3) neuritis of both inflammatory and degenerative origin in which are to be included some cases of Landry's paralysis, post-diphtheritic paralysis and some primary forms of unknown origin.

The Use of Borax in the Treatment of Epilepsy.—HOPPE (*Berl. Klin. Woch.*, No. 27, 1904).—Hoppe calls attention to the use of this remedy in the treatment of certain cases of epilepsy. This drug was first suggested by Gowers. This can be used in the cases in which, for one reason or the other, the usual methods of treatment cannot be carried on. There are four classes of cases to which this applies: The epileptics whose excretory organs are not in a position to carry on their functions properly. The cases with circulatory systems not adequate to the daily activity imposed upon them. The cases in which, in addition to the epilepsy, there is, as a complication or as a cause, an organic cerebral disease. Then there is that class of epileptics in which there is an intolerance to the bromides. Twelve cases belonging to one or another of these classes were placed upon the borax treatment. The dose was one to three grams a day. In seven of these cases the result was altogether unsuccessful; in five of them the effect was good.

In conclusion, the author states that in borax there is not a specific antiepileptic effect to be expected. In those cases in which the epilepsy would be influenced by a condition of stomach symptoms, especially hyperacidity, the borax treatment may be of considerable service.

Disseminated Sclerosis.—TREDGOLD (*Review of Neurology and Psychiatry*, No. 7, 1904).—This is a careful study of the subject and an account of the results of the microscopic study of three cases. This paper is of great interest because the author arrives at results that are at variance with the results of former investigators, especially in reference to the part played by the axis cylinder and the myelin sheaths in the pathogenesis of this disease. A valuable feature of this paper is the clinical classification of the disease. This is as follows: (1) The classical type in which the predominant symptoms are tremor, nystagmus and alteration of speech; (2) the spastic paraplegic type, in which for a considerable period the clinical picture is indicative of a lateral sclerosis; (3) the combined lateral and posterior sclerosis type, in which spastic paraplegia is accompanied by sensory changes; (4) the transverse myelitis type; (5) the cerebellar type, characterized by the cerebellar gait and often accompanied by headache, giddiness, vomiting and symptoms suggestive of cerebellar tumor; (6) the hemiplegic type, in which apoplectic attacks occur followed by hemiplegia, with or without aphasia (usually the paralysis is of a transient nature); (7) the hysterical type, marked by transient paralysis following nervous shock or actual injury.

A *resume* of the pathogenesis of this disease, as derived from the microscopical study, is as follows: (1) The initial change is in the myelin substance; (2) the axis cylinder persists for a time after the disappearance of its sheath; (3) as a result of this destruction of the higher elements a proliferation of neuroglia takes place, producing the patches of sclerosis; (4) as a result of the complete severance of the nerve fiber, secondary degeneration takes place; (5) the ganglion cells throughout the nervous system show an absence of acute change (in the later stages the cells undergo a chronic change); (6) the vascular changes must be looked upon as secondary in nature (the pathological conditions are suggestive of the presence of a circulating toxine as the cause of the disease); (8) a predisposition to the disease may be (rarely) inherited.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

Contribution to the Pathogenesis and Treatment in Certain Cases of Nephroptosis.—RUGGI (*Ann. des Mal. des Org. Urin.*, June 1, 1904).—Clinically we may admit an internal secretion of the kidneys, and that the state of health is dependent upon a proper balance of the internal secretion from the various organs and tissues. The form of disease is determined according to which one of the secretions is at fault. Accordingly we note that a predominance of renal secretion begets several nervous phenomena, and that in movable kidney the internal secretion is increased or diminished by its excursions or disturbed circulation. The thus modified renal secretion occasions an alteration of trophic nerves and the central nervous system, so that a general neurosis is set up.

Surgery of the Prostate Gland.—DEAVER (*Amer. Jour. Med. Sciences*, July, 1904).—This article considers the methods previously devised for the relief of prostatic hypertrophy, its etiology, clinical pathology, symptoms, diagnosis, prognosis, treatment and the technique of special operations. The author rather chooses that procedure which seems better fitted to the case in hand, be it prostatectomy, perineal or suprapubic, or palliative drainage. The Bottini operation does not seem to appeal to him. His method of doing suprapubic prostatectomy does not differ materially from Freyer's, namely: after opening the bladder, to make a longitudinal incision over the most prominent portion of the hypertrophied gland; to then introduce the index and middle fingers of one hand into the rectum, the thumb being against the perineum; with the index finger of the other hand the prostate is rapidly shelled out through the incision over the prostate. The power of procreation is destroyed, but as it is questionable whether the spermatic fluid would be ejected without the contraction of the prostate, and as it is probable that it would not be fertile without the secretion of the prostate, the destruc-

tion of these ducts is a secondary consideration. Thirteen cases done by Freyer's method are reported.

Radical Cure of Cancer of the Prostate.—POUSSON (*Ann. des Mal. des Org. Urin.*, June 15, 1904).—Pousson reports five cases of operation for cancer of the prostate—one case just operated upon; one was lost sight of three months after operation, but was in good health at that time; one was in good health and emptied completely his bladder nine months after operation, and two died of cachexia five months after operation.

The methods of operation that have been undertaken for the relief of prostatic cancer are considered, together with the symptoms and diagnosis. Pousson has collected twenty-three cases from literature, with a mortality of 31.8 per cent. He believes the future will have to decide whether the suprapubic or perineal route is the better, as too few cases up to the present have been attacked surgically. It is clear that cancer of the prostate and bladder develop independently of each other in the majority of cases, and an earlier intervention will bring better results.

Experimental Decapsulation of the Kidneys.—GIFFORD (*Boston Med. and Surg Jour.*, July 14, 1904).—As a result of a year's work on experimental decapsulation the author draws these deductions:

Following the decapsulation of kidneys in rabbits, in normal dogs, in dogs with induced nephritis, in dogs with infarcted kidneys, and in dogs with normal kidneys but with additional work thrown upon them, I find the following conditions:

1. In all my cases of two days and under and in my controls the entire thickness of the capsule had been removed over two-thirds of the surface by the operation of decapsulation.
2. There is a certain amount of intracapsular tension in undecapsulated kidneys, normal or with nephritis, as shown on removal of capsule.
3. There is an immediate increase in size of decapsulated kidneys persisting up to one month at least; afterwards, a decrease to approximately normal size complete at end of six months.
4. There is congestion, moderate in degree, most marked in the intertubular blood vessels in cortex, lasting three to five days after the operation.
5. No histological change in the renal epithelium follows the operation of decapsulation of kidneys.
6. A new capsule, very vascular, at first, two to four times thickness of old, is well marked at end of eight days. At the end of six months it returns to approximately the normal thickness and vascularity. The new capsule arises chiefly from the connective tissue cells of the intertubular connective tissue, but in part from the retroperitoneal connective tissue which is present in the new bed of the kidney.
7. No new vessels are formed which anastomose with those of the kidney.
8. The increase in size is due primarily to the increase in blood supply, possibly resulting from the removal of the capsule.

When and How Shall We Operate for Prostatic Hypertrophy.—MEYER (*Med. Rec.*, June 25, 1904).—The paper is summed up in these conclusions:

1. In view of the present advanced status of prostatic surgery, the catheter should no longer be advised as a *routine measure* in the surgical treatment of the disease under consideration.

2. Operative intervention should be urged as soon as the time for the regular use of the catheter has come.

3. Prostatectomy, being the most radical as well as the most surgical procedure, commands the first place in the treatment of the hypertrophied prostatic gland, especially since the technique has been perfected to such a point as to render the operation a comparatively safe one, the mortality having been shown to be less than 5 per cent.

4. The perineal route seems preferable to the suprapubic, for the reason that it enables the surgeon to do the operation more under the guidance of his eyes.

5. The choice of route in the average case will probably hinge on the question of preservation of the sexual power, provided this point is of importance to the patient.

6. The patient's age, as such, does not furnish a contraindication to operation; it is his general condition merely that has to be taken into consideration.

7. Where the effects of general anæsthesia are feared, spinal anæsthesia is indicated.

8. If the operation with the knife be refused or contraindicated, Bottini's operation should be advised, since it, too, yields excellent results.

9. Thus, we have two useful methods of operation for prostatic hypertrophy, viz., prostatectomy by the perineal or suprapubic route, and Bottini's operation, each holding its own place, and one complementing the other.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

Mercurial Injections in the Treatment of Syphilis.—LEWIS WICKHAM (*The Practitioner*, July, 1904).—The author remarks that in giving injections of mercury a system of intermittent medication must be followed, as is usually observed in all antisypilitic treatment; that is to say, the treatment is carried out in a series of courses, each of which is followed by a period of rest in which the remedy is discontinued. The period of repose is of great importance as it prevents the patient from becoming habituated. Without it, after two months of treatment continued doses produce less and less effect, and the disease behaves as if it were not being treated at all. The danger of such habituation is great, and is one which is often overlooked. At the beginning of the attack of syphilis the periods of rest must be brief—three to four weeks—later on they may be prolonged, calculated on the basis that out of the first

twelve months five should be devoted to the treatment and seven to rest; in the second year there should be four months of treatment out of the twelve; in the third year three months of treatment out of the twelve. Each course of treatment lasts about three or four weeks. At the very beginning of treatment, at the period of chancre, it is necessary to strike hard. Having this object in view the author advises during the first month the use of daily injections, and during this month the biniodide of mercury is used, the dose being gradually raised with all due precautions to 3 c. c. daily. If the attack prove normal and amenable to treatment one may, after three weeks of rest, continue the course with injections or grey oil, which are more convenient, six injections of 6 cgm. to 7 cgm., being given at intervals of five days. The period of rest which ensues is extended to five weeks. These periods of treatment and rest are so calculated as to reach the total above indicated for the whole year's treatment. The doses, however, should vary according to the tolerance of the treatment and the degree of reaction produced. In men and women of less than average weight the doses must be slightly diminished and this, also, must be the case with old men, but in the latter there is no reason to hesitate to push the doses when the patient's resistance has been ascertained, since it is important to remember that age is one of the grave factors in the prognosis of syphilis. In children, the administration of mercury by the mouth is to be preferred. Children bear comparatively large doses of the drug. In case of syphilis of several months' duration, there must be taken into account the nature of treatment previously adopted as well as the gravity of the case, and in grave and rebellious attacks that mode of treatment which renders it possible at one and the same time to ascertain the susceptibility of the patient and push the remedy energetically is to be preferred; that is to say, injections of the soluble salt, such as the biniodide of mercury in daily doses and increasing amounts. In the author's opinion the injection method of treatment is best calculated to produce the greatest benefits. However, it must be clearly recognized that along with the treatment by injections collateral remedial measures must be carried out, such as tonics and local dressings. The combination of the mercurial salts with large doses of physiological serum, where the weakness of the patient is marked, is excellent, or the physiological serum may be given independently of the mercury.

Preliminary Note on the Treatment of Lupus by Becquerel Rays.—BOUBAYRON (*Gazette des Hopitaux*, July 7, 1904).—For some time the author has had the idea of treating lupus by the prolonged applications of substances feebly radioactive, such as nitrate of uranium and of thorium, pitch blend, etc. The applications are made directly in contact with the tissues. He presents a case of cure of lupus of the size of a five-franc piece cicatrized after thirty days.

Case of Lichen Pemphigoides.—Prof. S. Mendez da Costa (*Monatsft. f. Prakt. Dermatol.*, June 15, 1904.) The author presents a case of this rare complication of lichen planus. It occurred in a man who presented a typical lichen planus which underwent this change. In the study of the case the author believes that the disease is a polymorphic one. It may appear in a bullous form after the picture of pemphigus, the lat-

ter lesions being undoubtedly due to local irritation. Arsenic also in this form acts beneficially.

Note on the Treatment of Multiple Warts by the Internal Use of Magnesium Salts.—ARTHUR HALL (*British Journal of Dermatology*, July, 1904).—It is a well known fact, although some are highly incredulous, that the magnesium salts, through internal administration, have a direct and specific influence in some way upon multiple warts. After the report of a case thus beneficially influenced, the author believes that a possible explanation may be that, granted the disease is due to a micro-organism, it is one of poor resistance and may be destroyed by a very slight alteration of the soil, thus an increase of magnesium salts in the tissue juices, a small quantity of arsenic, thyro-iodine, etc., may be sufficient to retard the further growth of the organism, with consequent shrinking of its new formation and disappearance of the disease. Such a view is consistent with what we observe in other parasitic diseases.

LARYNGOLOGY AND OTOTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

The Use and Abuse of the Artificial Drum-Head.—MATHER (*Cleveland Medical Journal*, July, 1904).—After giving a brief history of the artificial drum, the author describes the various kinds and their method of application. He prefers the small cotton ball, saturated with a solution of carbolic acid, rectified spirits and glycerine, first described by Yearsly, this being the simplest and most effective. The size and shape of the ball can be ascertained only by trial. Mather has observed in regard to the indications for the use of the artificial tympanic membrane that—

1. A perforation in the anterior superior quadrant is an unfavorable case for its use.
2. A perforation in the anterior inferior quadrant sometimes yields good results.
3. If the ossicles are intact but their articulations broken or separated, with a perforation in any part of the posterior half of the tympanic membrane, the chances for a favorable result are good.
4. If the incus is largely destroyed and a large perforation is present, while the foot-plate of the stapes remains intact and freely movable, although its crura may be entirely destroyed, the result is nearly always excellent.
5. In cases in which there is no perforation, but a stretched, flabby, and freely movable tympanic membrane, the chances are about even, provided the patient hears the tuning fork held in front of the nares while the external canals are closed.

Further Examinations on the Diagnostic Value of the Rhodan Reaction in the Saliva of Ear Cases and in Other Diseases; also on the Presence of Ptyaline in the Saliva of Ear Cases.—JURGENS (*Monatsschrift fuer Ohrenheilkunde*, May, 1904).—The author reviews the literature on the rhodan reaction in the saliva of ear cases and then gives a brief history of forty-nine cases of middle ear disease in which he examined the saliva for the rhodan reaction. His findings in twenty-eight cases, other than ear diseases, such as pneumonia, typhoid fever, erysipelas, etc., are also given. From these examinations he concludes:

1. That when a decided rhodan reaction can be obtained from the parotid saliva the ear on the same side is normal, or only very slightly involved.

2. A negative result in ear disease proves the affection to be a severe one, providing other diseases can be excluded.

3. A weakening of the rhodan reaction shows, according to the grade, more or less involvement of the corresponding ear and can be regarded as a good criterion as to the severity of the disease process. Accordingly the reaction may be absent or present in acute or subacute cases.

4. If the reaction returns during the course of a middle ear affection it shows the benign course of the disease, or if the reaction should disappear the course of the disease can be regarded as unfavorable.

5. If in middle ear inflammations the process has apparently subsided and the discharge has ceased and there is a negative reaction, it shows that nerve structures in the middle ear have been destroyed, or that the process will soon be active again. When there is a decided positive reaction the proof is established that the process has subsided.

6. That the rhodan reaction can be made in cases where an otoscopic examination is impossible, as in the cases where the canal is occluded, it then becomes a very valuable diagnostic and prognostic aid.

7. The presence of ptyaline in the saliva is not dependent on the function of the nerves of the middle ear. Ptyaline was always found when no trace of rhodan could be obtained.

The Application of Conservative and Radical Surgery to Chronic Nasal Accessory Disease.—CANFIELD (*Medical News*, July 16, 1904).—The author has observed some two hundred cases of chronic disease of the different nasal accessory sinuses treated radically, and one hundred and ten cases treated conservatively. Upon the majority of these he operated himself. After carefully studying these cases the writer concludes that conservative methods are successful in nine out of ten uncombined cases, and should always be given a thorough trial before recourse is had to radical measures. Uncombined empyemas are not uncommon. Difficulty in healing is not always in direct proportion to the duration of the disease. Drainage of the antrum is most satisfactorily obtained through the nose. The ethmoid is the chief cause of chronicity of the obstinate combined cases. The sphenoid is readily accessible through the nose in a large per cent. of cases. It can be probed in 90 per cent. of the cases. Establishing free nasal respiration is important in securing permanent results. The radical operation should be resorted to infrequently. The best radical antrum operation is the modified Luc-Caldwell. The best frontal operation is that of Killian. Frontal sinus operations not closed

at the time of operation cause deformity. Great care must be taken of the eye at the time of operation. Accidents to the eye are: (1) Loosening the pulley of the superior oblique causing diplopia, and (2) dimness of vision due to (a) extraocular causes—lacrimation, conjunctivitis; (b) intraocular causes—iritis, neuroretinitis.

The Treatment of Middle Ear Disease by Means of Electric Light.—MEYEROWITZ (*Roussky Vrach. rev. N. Y. Med. Jour.*, July 16, 1904) reports a series of cases of middle ear diseases, acute and chronic, in which he obtained excellent results by the reflection of electric light directly upon the ear drum and through it into the middle ear. At first he tried blue light, thinking that the so-called chemical rays had greater influence upon the inflammatory processes, but he found that such light in the ear, after a short exposure, produced marked inflammatory reactions; therefore he confined his experiments to ordinary incandescent lamps adapted to special apparatus, which could be screwed to an ordinary ear speculum in such a manner that the light fell directly into the ear and the incandescent lamp was so arranged as to be constantly surrounded by a slow stream of water, which kept it cool. Usually the sitting lasted about fifteen minutes. In two cases of acute catarrh, three or four sittings were sufficient to remove all the symptoms. In some cases of dry catarrh very fair results were obtained, but the experiments have not yet been completed. In four cases of catarrh with exudation, including both acute and chronic types, the electric light caused the absorption of exudate and the disappearance of the symptoms.

The Treatment of Aphonia Spastica by Means of Mechanically Influencing the Formation of the Glottis.—BARTH (*Archiv fuer Laryngologie und Rhinologie*, Band 16, Heft 1) reports three cases of aphonia spastica in which he was able to bring about a return of the voice to the normal by inserting a probe between the vocal cords after cocainizing the larynx, and then having the patient attempt to phonate. In one of the cases, which was of three years' standing, the condition returned at the end of a few hours, when a larger probe was inserted with the result that the voice remained normal for several weeks, when the voice was again suddenly lost. A repetition of the same procedure brought about a return to the normal which has continued. The second case was only of two or three weeks standing. The same treatment was applied with the result that the voice has remained normal ever since, a period of over two months. The third case was one of two years' standing. One application of the sound brought about a return to the normal. However when the patient becomes excited the voice is lost, but after a few moments he regains control of this faculty.

On the Treatment of Pharyngitis Granulosa and Lateralis.—HERZFELD (*Monatsschrift fuer Ohrenheilkunde Jahrg. xxxviii*, No. 5).—After calling attention to the fact that he was the first to recommend the removal of the granula and thickened lateral folds in cases of pharyngitis, in which it could be proven that they were giving rise to such symptoms as cough,

feeling of foreign body, etc., the author goes on to describe a modification of the punch forceps he formerly employed. The removal of these granula are of special value to speakers and singers. However he warns against the too extensive removal of the pharyngeal mucous membrane, as the resulting scar-formation will greatly embarrass the speaker or singer. The removal of the lateral thickenings (seitenstränge), especially that portion which extends into the nasopharynx is frequently followed by an acute pain in the ear which may last for several hours. The wound usually heals in about two weeks.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

Two Peculiar Cases of Melanotic Sarcoma of the Conjunctiva.—R. W. DOYNE (*The Ophthalmoscope*, July, 1904).—The unusual feature of these two cases consisted in the presence of pigmented areas in the conjunctiva wholly unconnected with the pigmented growth. In the first case the tumor was located at the inner canthus, the pigment stain appearing on the conjunctiva of the upper lid. Nine months after removal of the growth, which recurred locally, the pigment stain had entirely disappeared. The recurrences did not affect the original pigmented area. Death supervened five years later from metastasis in the jejunum and liver.

In the second case a "sooty" stain of the conjunctiva of the lower lid accompanied a pedunculated pigmented growth of the conjunctiva of the upper lid. The tumor recurred eight months later and was excised. A morsel of the stained area of the lower lid was removed at the same time and subjected to microscopic examination. It showed merely scattered pigment beneath the epithelium and deeper down large pigmentary cells.

Case of Orbital Mucocele Operated on by Krœnlein's Method.—H. R. SWANZY (*Ophth. Review*, June, 1904).—A woman, aged fifty-four, presented a soft elastic tumor below the supraorbital margin. The exophthalmus was forward and slightly downward. Temporary resection of the outer wall of the orbit after Krœnlein's method revealed a mucocele extending to the frontal sinus and probably into the ethmoidal cells. Four ounces of mucus were evacuated, the walls of the cavity dissected away and curetted. Forward protrusion disappeared entirely, but some downward remained. The deformity was surprisingly slight.

Optic Neuritis Following Smallpox.—A. F. FERGUS (*Ophthalm. Rev.*, July, 1904).—A convalescent from smallpox observed in one eye dimness of vision equalling 6-12, not improved by glass. The ophthalmoscope showed blurring, hyperemia and loss of transparency in the papilla. No swelling or retinal hemorrhages and but little tortuosity of

the vessels. The fundus of the fellow eye was normal in all respects. The light sense, as determined by Bjerrum's light sense types, was notably diminished. The visual fields for white light were greatly contracted in both eyes, the right rather more than the left. Evidence of syphilis or any form of peripheral neuritis was absent.

Bullous Keratitis; Fatty Degeneration of Bowman's Membrane.—A. E. EWING (*Am. Jour. Ophthalm.*, June, 1904).—The writer gives a resume of the histologic findings and conclusions of various investigators from V. Græfe to the present time on the subject of bullous formation often occurring in the corneæ of glaucomatous eyes. The paper is based on the histologic examination of an eye long blind from glaucoma, the sections showing the following steps in the formation of the bulla: (1) The presence of fatty vacuoles in Bowman's membrane and absorption of vacuolated epithelium. (2) Fatty degeneration in the anterior limiting membrane which is partially absorbed and degeneration of the corneal fibres. The contents of the vesicle is mostly fluid. (3) The bulla is now well established and regeneration has begun, as shown by the increase in the number of layers of the epithelium and the absence of indentation along the outer wall of the vesicle. (4) The appearance of fibrin, wandering cells, spindle cells and, finally, blood vessels, in the vesicle. The writer sums up as follows: "The sections show that bullous keratitis attendant on advanced glaucoma is not primarily an affection of the epithelium, but a form of necrosis of the anterior limiting membrane in the destruction of which the epithelium is forced to take part."

BOOK REVIEWS.

THE PRACTICAL MEDICINE SERIES OF YEAR-BOOKS. Volume IV. Gynecology. March, 1904. Edited by E. C. DUDLEY, A. M., M. D., and WILLIAM HEALY, A. B., M. D. The Year-Book Publishers, Chicago.

This volume presents a clear and complete resume of all the original work done in the field of gynecology during the past year. An examination of the book easily shows that Dr. Dudley took care in selecting the papers worthy of consideration; that, however, the space given to abstracts of his own work is decidedly out of proportion.

ELEMENTS OF GENERAL RADIOTHERAPY FOR PRACTITIONERS. By Dr. LEOPOLD FREUND (Vienna). Translated by G. H. Lancashire. Reiman Company. 1904. New York and London.

There is a just demand for a practical treatise such as we have before us on radiotherapy, a book sufficiently elementary to be comprehended by those who have not the time to devote to the more technical study of the subject. Dr. Freund's thorough knowledge of light in all of its therapeutic forms and applications, places him in a position second to none. The first chapter is devoted to the elementary study of electricity, and is written in such a way that many a complicated point is rendered clear and practicable. The second chapter treats of the high frequency currents which have lately been introduced for various general and local diseases. A comprehensive article upon x-ray therapy is included in the third chapter, and the various methods and techniques are discussed. The fourth chapter is devoted to the Becquerel rays, and the fifth and last to the numerous treatments with heat and light.

The book is scientific and practical, and it is a safe guide for those engaged in any form of light therapy. An appendix upon instrumentation, dealing with the mechanical part of light production, is written by Clarence A. Wright, F. R. C. S.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Volume V, Obstetrics. Edited by JOSEPH B. DE LEE, M. D. April, 1904. The Year Book Publishers, 40 Dearborn street, Chicago.

We take pleasure in stating that this volume is a particularly good one of the series. By casual critical remarks, by briefly citing his own observations, either in support or in opposition of a certain writer's contention, De Lee deprives this volume of the monotonous character peculiar to such publications. This review of the obstetrical literature of the past twelve months offers not only interesting and instructive, but decidedly agreeable reading.

DOCTOR AND PATIENT. By S. WEIR MITCHELL, M. D., LL.D. Fourth edition. Philadelphia and London: J. B. Lippincott Co. 1904.

Ever since its first edition appeared, seven years ago, this little book has enjoyed an unflinching popularity among the medical profession. It is almost unique among medical publications in that it not only contains much matter of interest and value to every physician, but it is peculiarly fit to be placed in the hands of the patient himself. The first chapter on "The Physician" is one of the most charming in the book. A patient standing before the portrait of the great William Harvey once asked Dr. Mitchell, "I should be a little curious to know how he would have treated my case." With this as a text he tells of the great physicians of old, Harvey, Cardan, Sydenham, Rush and others, and shows that their practice was far in advance of their theory. What distinguished them from their fellow-practitioners were just the qualities that mark the great physician today, a lively interest in every aspect of a case, a keen insight into

all the circumstances effecting the patient and his malady and a constant preference for hygienic and dietetic modes of treatment. He goes on to discuss some of the many personal problems that have confronted physicians in all ages and illustrates them by means of many an illuminating anecdote. A delightful chapter on "Convalescence," based on an experience of the writer's own, follows. The rest of the book, while of great interest to physicians, too, is preached more directly at the laity. On, in particular, "The Moral Management of Sick or Invalid Children," emphasizes the need for restraint and terrible effect on the character of the little sufferer of over-indulgence, and should be read by all parents of invalid children. Other chapters concern themselves, with pain and the opium habit, nervousness and its influence on character, outdoor and camp-life for women. Any physician who has not read the delightful little book has missed a great pleasure.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles by Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. KELLY, A. M., M. D. Volume 1. Fourteenth Series. 1904. Philadelphia: J. B. Lippincott Co.

This volume follows in the footsteps of its predecessors. Two of the articles are by French clinicians, the rest are by Americans. One of the most instructive is by Carl Beck on "Angioma and Its Treatment," illustrated by three colored plates of unusual beauty and by many half-tones. The volume concludes with an adequate survey of the progress in medicine during 1903 in internal medicine, surgery and treatment. The general get-up of the volume is, as usual, excellent.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Vol. VI. General Medicine. Edited by FRANK BILLINGS, M. S., M. D., and J. H. SALISBURY, M. D. May, 1904. Chicago: The Year Book Publishers.

This is one of the best volumes of the series. It concerns itself chiefly with a few of the infectious diseases, especially typhoid fever and with diseases of the digestive tract. It is not merely a brief summary of articles published during the past year: important cases are reproduced with considerable detail, and pathologic and therapeutic matters are adequately treated. A valuable feature is the critical discussion by the editors of the more important articles abstracted. A fairly good index closes the volume.

THE THERAPEUTICS OF MINERAL SPRINGS AND CLIMATES. By I. BURNEY YEO, M. D., F. R. C. P. Chicago: W. T. Keener & Co. 1904.

The use and selection of baths and climates in the treatment of disease are topics that have occupied the attention of European physicians to a far greater extent than is the case with us, as is shown by the great number of bathing and health resorts scattered all over England and the continent where patients may obtain rational and skilled treatment under the care of scientifically trained physicians. In this country, too, the medical profession is awakening to the importance of this branch of therapeutics, and while this book concerns itself only with European conditions, it may well prove of value to American physicians, not only those who are planning to send patients abroad, but also those who wish for a general knowledge of European health-resorts. The volume is divided into two parts. The first is devoted to the study of mineral springs, the introductory chapters being concerned with certain general considerations and the vast number of mineral-water resorts being described in alphabetical order. The second part is concerned with the subject of climates. Its chief object is to serve as a practical guide to the characters and applicability of such climatic resorts as are fairly accessible to English invalids. The health resorts of Colorado and California are briefly discussed and a few lines are devoted to Old Mexico. The English colonies in the Western Hemisphere are treated at greater length.